API Well No: 43047512390000 Received: 8/13/2010

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING AMENDED REPORT DIVISION OF OIL, GAS AND MINING									
APPLI	CATION FOR	PERMIT TO DRILL	-			1. WELL NAME and NUMBER NBU 921-25C1AS				
2. TYPE OF WORK DRILL NEW WELL	REENTER P8	A WELL DEEPE	EN WELL			3. FIELD OR WILDO	CAT NATURAL BUTTES			
4. TYPE OF WELL Gas We	ell Coalb	ed Methane Well: NO				5. UNIT or COMMU	NITIZATION AGREINATURAL BUTTES	MENT NAME		
6. NAME OF OPERATOR KERR	R-MCGEE OIL & (GAS ONSHORE, L.P.				7. OPERATOR PHO	VE 720 929-6007			
8. ADDRESS OF OPERATOR		enver, CO, 80217				9. OPERATOR E-MA Kathy.Schne	IL ebeckDulnoan@anad	arko.com		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		11. MINERAL OWNE		<u> </u>		12. SURFACE OWN	RSHIP			
UO 1189 ST 13. NAME OF SURFACE OWNER (if box 12	- 'foo')	FEDERAL () IND	DIAN STATE	•	FEE ()	FEDERAL INI	DIAN STATE (
								•		
15. ADDRESS OF SURFACE OWNER (if box	(12 = 'fee')					16. SURFACE OWN	ER E-MAIL (IT DOX 1	.2 = 'fee')		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COM MULTIPLE FORMATI YES (Submit C			ROM NO	VERTICAL DIF	ECTIONAL 📵 HO	DRIZONTAL 🛑		
20. LOCATION OF WELL	FO	OTAGES	QTR-QTR		SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE	800 FN	IL 893 FWL	NWNW		25	9.0 S	21.0 E	S		
Top of Uppermost Producing Zone	190 FN	L 2405 FWL	NENW		25	9.0 S	21.0 E	S		
At Total Depth	190 FN	L 2405 FWL	NENW		25	9.0 S	21.0 E	S		
21. COUNTY UINTAH		22. DISTANCE TO N	EAREST LEASE LI	NE (Fe	et)	23. NUMBER OF AC	RES IN DRILLING U	JNIT		
		25. DISTANCE TO N (Applied For Drilling	EAREST WELL IN	SAME	POOL	26. PROPOSED DEF)		
27. ELEVATION - GROUND LEVEL		28. BOND NUMBER				29. SOURCE OF DR WATER RIGHTS AP	PROVAL NUMBÉR I	F APPLICABLE		
4942			22013542				Permit #43-8496			
		A	TTACHMENTS							
VERIFY THE FOLLOWING	ARE ATTACH	ED IN ACCORDAN	CE WITH THE U	JTAH (OIL AND (GAS CONSERVATI	ON GENERAL RU	ILES		
WELL PLAT OR MAP PREPARED BY	LICENSED SUR	VEYOR OR ENGINEE	R COI	MPLET	E DRILLING	PLAN				
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGRE	EMENT (IF FEE SURF	ACE) FOR	M 5. I	F OPERATO	R IS OTHER THAN T	HE LEASE OWNER			
DIRECTIONAL SURVEY PLAN (IF DI	RECTIONALLY	OR HORIZONTALLY	№ ТОР	OGRA	PHICAL MAI	•				
DRILLED)										
NAME Danielle Piernot		ITLE Regulatory Analys			PHONE 72	20 929-6156				
	Т	ITLE Regulatory Analys				20 929-6156 bregulatory@anadarko	o.com			
NAME Danielle Piernot	Т	<u> </u>					o.com			

API Well No: 43047512390000 Received: 8/13/2010

	Proposed Hole, Casing, and Cement											
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)								
Prod	7.875	4.5	0	10007		Г						
Pipe	Grade	Length	Weight									
	Grade I-80 Buttress	10007	11.6			Г						
						Г						

API Well No: 43047512390000 Received: 8/13/2010

	Proposed Hole, Casing, and Cement											
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)								
Surf	11	8.625	0	2450								
Pipe	Grade	Length	Weight			Γ						
	Grade I-80 LT&C	2450	28.0			Г						

NBU 921-25C1AS

Pad: NBU 921-25D

Surface: 800' FNL 893' FWL (NW/4NW/4) BHL: 190' FNL 2,405' FWL (NE/4NW/4)

Section 25 T9S R21E

Uintah County, Utah Mineral Lease: UO 1189 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 – Surface	
Green River	1,549'	
Birds Nest	1,824'	Water
Mahogany	2,195'	Water
Wasatch	4,804'	Gas
Mesaverde	7,510'	Gas
MVU2	8,441'	Gas
MVL1	8,982'	Gas
TVD	9,740'	
TD	10,007'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

Evaluation Program:

Please refer to the attached Drilling Program.

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottomhole pressure calculated at 9,740' TVD, approximately equals 6,169 psi (calculated at 0.63 psi/foot).

Maximum anticipated surface pressure equals approximately 4,027 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

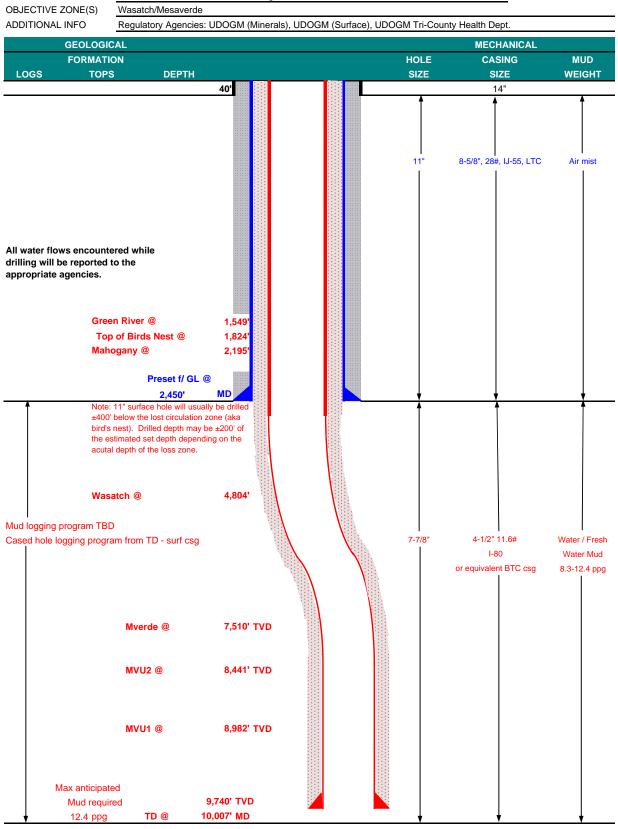
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP August 12, 2010 **NBU 921-25C1AS** WELL NAME TD 9,740' 10,007' MD **FIELD** Natural Buttes **COUNTY Uintah** STATE Utah FINISHED ELEVATION 4,941' SURFACE LOCATION NW/4 NW/4 800' FNL T 9S Sec 25 R 21E 40.012084 -109.505636 NAD 27 Latitude: Longitude: BTM HOLE LOCATION NE/4 NW/4 190' FNL 2,405' FWL Sec 25 R 21E T 9S 40.013775 Latitude: Longitude: -109.500242 NAD 27 Wasatch/Mesaverde





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACT	ORS
	SIZE	INT	ERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	C)-40'							
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,450	28.00	IJ-55	LTC	0.80	1.64	5.02
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	10,007	11.60	I-80	BTC	1.88	1.01	2.74

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.20

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.4 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 4,027 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.4 ppg) 0.63 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 6,169 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to sur	face, optio	n 2 will be ເ	utilized	
Option 2 LEAD	1,950'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,297'	Premium Lite II +0.25 pps	310	10%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,710'	50/50 Poz/G + 10% salt + 2% gel	1,100	10%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

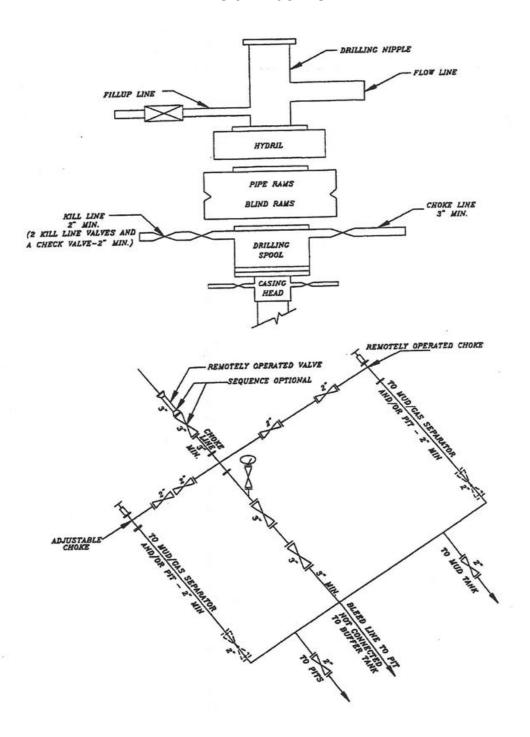
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

ENGINEED.	DATE
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.	
Surveys will be taken at 1,000' minimum intervals.	

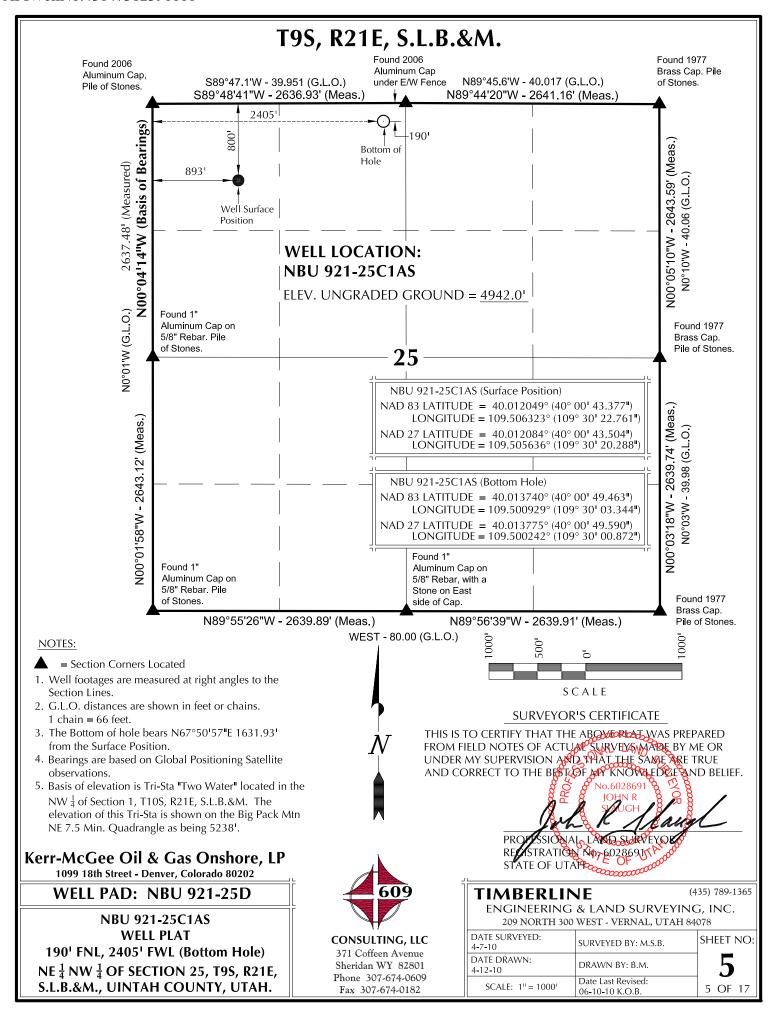
DRILLING ENGINEER:		DATE:	
	John Huycke / Emile Goodwin		
DRILLING SUPERINTENDENT:		DATE:	
	John Merkel / Lovel Young	-	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 921-25C1AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



WELL NAME	NAI		SURFACE POSIT	ION IAD27	1			NAD		BOTTOM HOLE NAC)27	
	LATITUDE	LONGITUE	DE LATITUDE		ITUDE	FOOTAGES	LATIT		LONGITUDE	LATITUDE	LONGITUDE	FOOTAGE
NBU 921-25E3AS	40°00'43.104" 40.011973°	109°30'23.13 109.506426°	40°00'43.23 40.012008°	109°30'. 109.505		828' FNL 864' FWL	40°00'2 40.0083		109°30'29.435" 109.508176°	40°00'30.031" 40.008342°	109°30'26.962" 109.507489°	2162' FN 371' FWI
IBU	40°00'43.172"	109°30'23.04	12" 40°00'43.29	98" 109°30'.	20.569"	821' FNL	40°00'3	31.764"	109°30'22.038"	40°00'31.890"	109°30'19.566"	1976' FN
21-25E1CS BU	40.011992° 40°00'43.240"	109.506401° 109°30'22.94	_	109.505 6" 109°30'.		871' FWL 814' FNL	40.0088		109.506122° 109°30'24.911"	40.008858° 40°00'46.860"	109.505435° 109°30'22.438"	947' FW 460' FNI
21-25D1CS	40.012011°	109.506374°	40.012046°	109.505	687°	878' FWL	40.0129	982°	109.506920°	40.013017°	109.506233°	726' FW
BU 21-25D1BS	40°00'43.309" 40.012030°		40°00'43.43 40.012065°	35" 109°30'. 109.505		807' FNL 885' FWL	40°00'5 40.0140		109°30'25.048" 109.506958°	40°00'50.812" 40.014114°	109°30'22.575" 109.506271°	60' FNL 716' FW
BU	40°00'43.377"	109.506348° 109°30'22.76		04" 109°30'.	20.288"	800' FNL	40°00'4		109.306938 109°30'03.344"		109.306271 109°30'00.872"	
21-25C1AS BU	40.012049° 40°00'43.023"	109.506323°		109.505		8931 FWL 8361 FNL	40.013	740°	109.500929°	40.013775°	109.500242°	2405' FW
во 21-25D	40.011951°	109°30'23.24 109.506457°	40°00'43.14 40.011986°	109°30′		855' FWL						
			RELATIV	E COORDI	NATES -	From Surface		to Botto	om Hole			
VELL NAME	NORTH		WELL NAME	NORTH	EAST		NAME	NOR	TH EAST	WELL NAM	IE NORTH	EAST
BU 21-25E3AS	-1335.7'	4910	NBU 021-25E1CS	-1154.7'	77.6	NBU 921-25	D1CS	353.	7' -152.6'	NBU 921-25D1B	s 746.7'	-170.4
ELL NAME	NORTH	EAST	<u> </u>						· ·			
BU 21-25C1AS	615.31	1511.5'		\	_	1					•	
0.740	<u> </u>					\Z						
. -			_	`\		Az=34/765.8 N12°51'15"W 765.8 (To Bottom Hole)				1		1
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1099 1	8th Street - De	nver, Colora	do 80202	Š	7. 7.0°17'05 (70.82')	Az=17.	0.75	1				
1099 1		nver, Colora	do 80202	Š	720°17'05 (To Box)	Z=17.	0.75		MBERL			
1099 18 WEL	8th Street - De	nver, Colorad NBU 921	do 80202 -25D	Š	70°17'05 (To BC)	Az=17.	0.75		ngineerin	IG & LAND	SURVEYING	G, INC.
WELL WELL WELLS - N	8th Street - De L PAD - N PAD INTE BU 921-25E	nver, Colorad NBU 921 ERFERENC 3AS, NBU	do 80202 -25D CE PLAT 921-25E1CS		70°7	609 VI=ZV	\$03°5°5°	E	NGINEERIN 209 NORTH :	NG & LAND 300 West - Ver	SURVEYINC NAL, UTAH 840	G, INC.
1099 13 WELL WELLS - N	8th Street - De L PAD - N PAD INTE BU 921-25E 21-25D1CS,	nver, Colorad NBU 921 RFERENC 3AS, NBU NBU 921-2	do 80202 -25D CE PLAT 921-25E1CS		CONSI	609 JLTING, LLC	\$03°5°5°	DATE 4-7-1	NGINEERIN 209 NORTH : SURVEYED: 0	IG & LAND	SURVEYINC NAL, UTAH 840	G, INC.
WELL WELLS - N NBU 92	8th Street - De L PAD - N PAD INTE BU 921-25E 21-25D1CS, NBU 921	nver, Colorad NBU 921 RFERENC 3AS, NBU NBU 921-: 1-25C1AS	do 80202 -25D CE PLAT 921-25E1CS, 25D1BS &		CONSL 371 Co	609 VI=ZV	\$03°55 (To	DATE 4-7-1 DATE	NGINEERIN 209 NORTH : E SURVEYED: 0 E DRAWN:	NG & LAND 300 West - Ver	SURVEYINC RNAL, UTAH 840 BY: M.S.B.	
WELL WELLS - N NBU 92	8th Street - De L PAD - N PAD INTE BU 921-25E 21-25D1CS,	NBU 921 RFERENC 3AS, NBU NBU 921-; 1-25C1AS 1ON 25, TS	do 80202 -25D CE PLAT 921-25E1CS, 25D1BS & 9S, R21E,		CONSU 371 Co Sherida Phone	609 JLTING, LLC ffeen Avenue	\$03°57 (To	DATE 4-7-1 DATE 4-12-	NGINEERIN 209 NORTH : E SURVEYED: 0 E DRAWN:	SURVEYED B	SURVEYINC ANAL, UTAH 846 BY: M.S.B. B.M. vised:	G, INC.

FILL SLOPES = 1.5:1 TOTAL WELL PAD AREA = 3.76 ACRES TOTAL DAMAGE AREA = 6.38 ACRES SHRINKAGE FACTOR = 1.10

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

SWELL FACTOR = 1.00

WELL PAD - NBU 921-25D

WELL PAD - LOCATION LAYOUT NBU 921-25E3AS, NBU 921-25E1CS, NBU 921-25D1CS, NBU 921-25D1BS & NBU 921-25C1AS LOCATED IN SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC 371 Coffeen Avenue Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182

TOPSOIL @ 6" DEPTH = 1,879 C.Y. EXCESS MATERIAL = 4,810 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT +/- 9,300 CY RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 35,480 BARRELS

TIMBERLINE ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

— **PPL** — PROPOSED PIPELINE - EPL - EXISTING PIPELINE



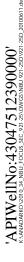
HORIZONTAL 0 1" = 60' 2' CONTOURS

Scale: 1"=60' Date: 5/12/10 | SHEET NO:

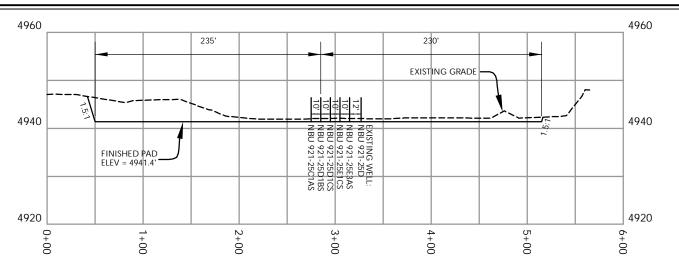
REVISED:

DJD 7/7/10

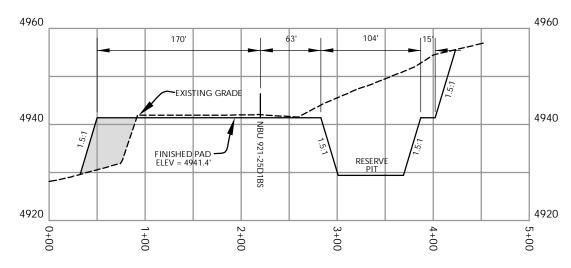
7 OF 17







CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP

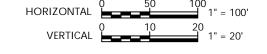
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25D

WELL PAD - CROSS SECTIONS NBU 921-25E3AS, NBU 921-25E1CS, NBU 921-25D1CS, NBU 921-25D1BS & NBU 921-25C1AS LOCATED IN SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



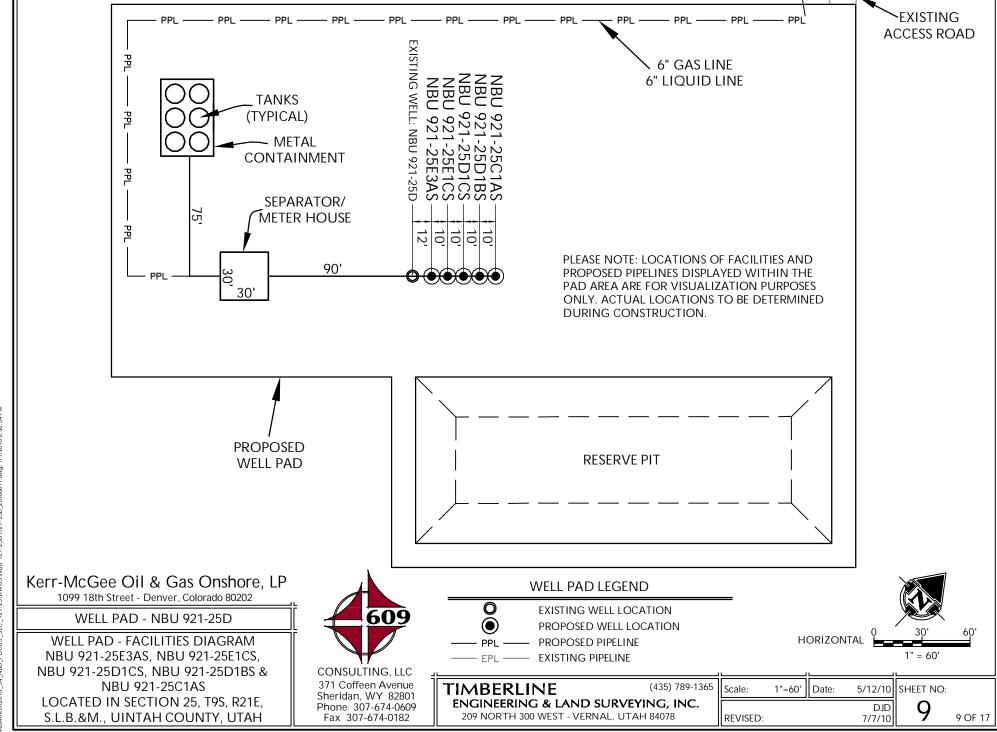




TIMBERLINE	(435) 789-13
ENGINEERING & LAND SURV	EYING, INC.
209 NORTH 300 WEST - VERNAL, UT	TAH 84078

(435) 789-136

5	Scale:	1"=100'	Date:	5/12/10	SHEET NO:	
	REVISED	:		DJD 7/7/10	8	8 OF 17



: A PINVEILING: 43047512390009.

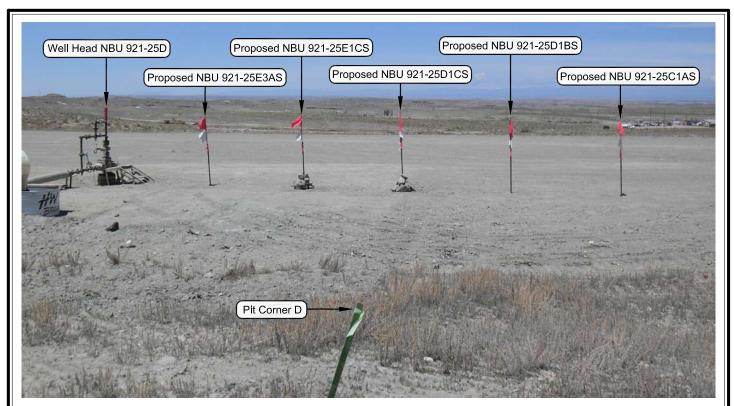


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE





PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: EASTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25D

LOCATION PHOTOS NBU 921-25E3AS, NBU 921-25E1CS, NBU 921-25D1CS, NBU 921-25D1BS & NBU 921-25C1AS **LOCATED IN SECTION 25, T9S, R21E,** S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC

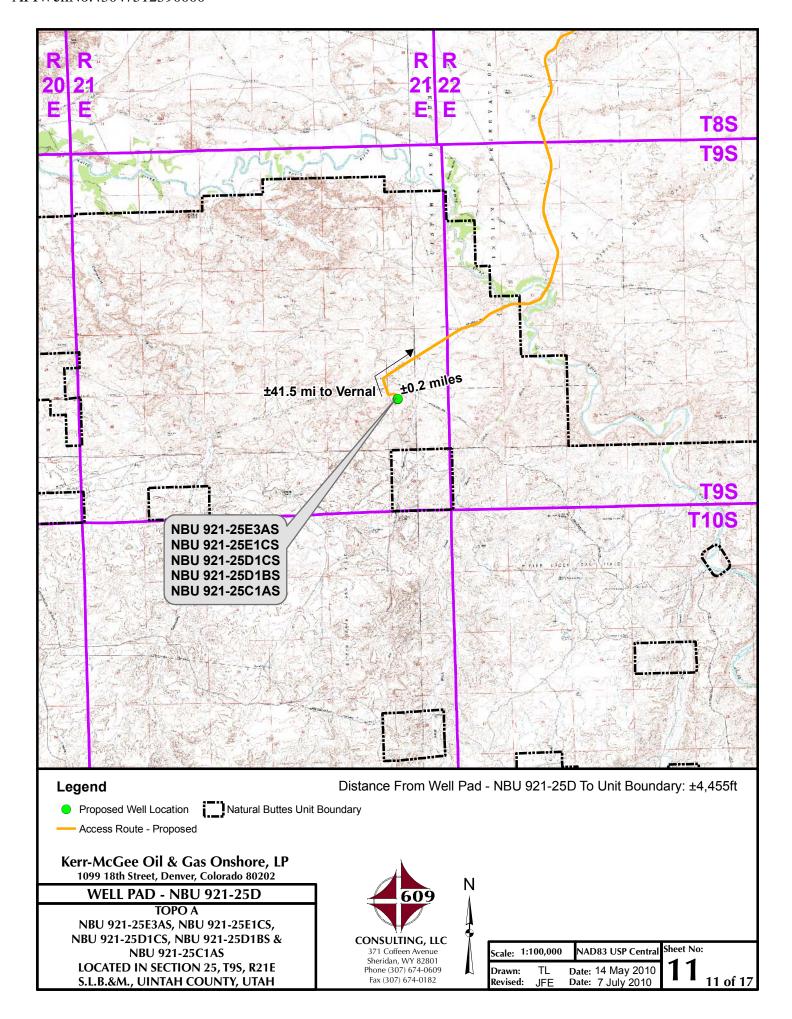
371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

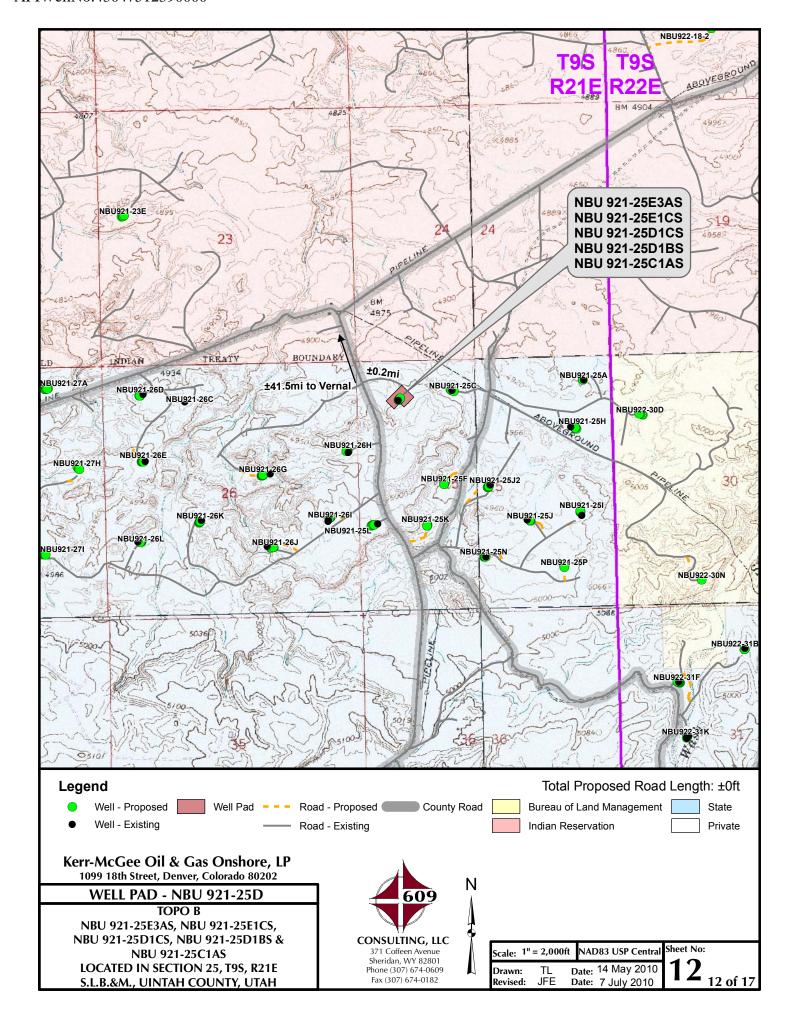
TIMBERLINE

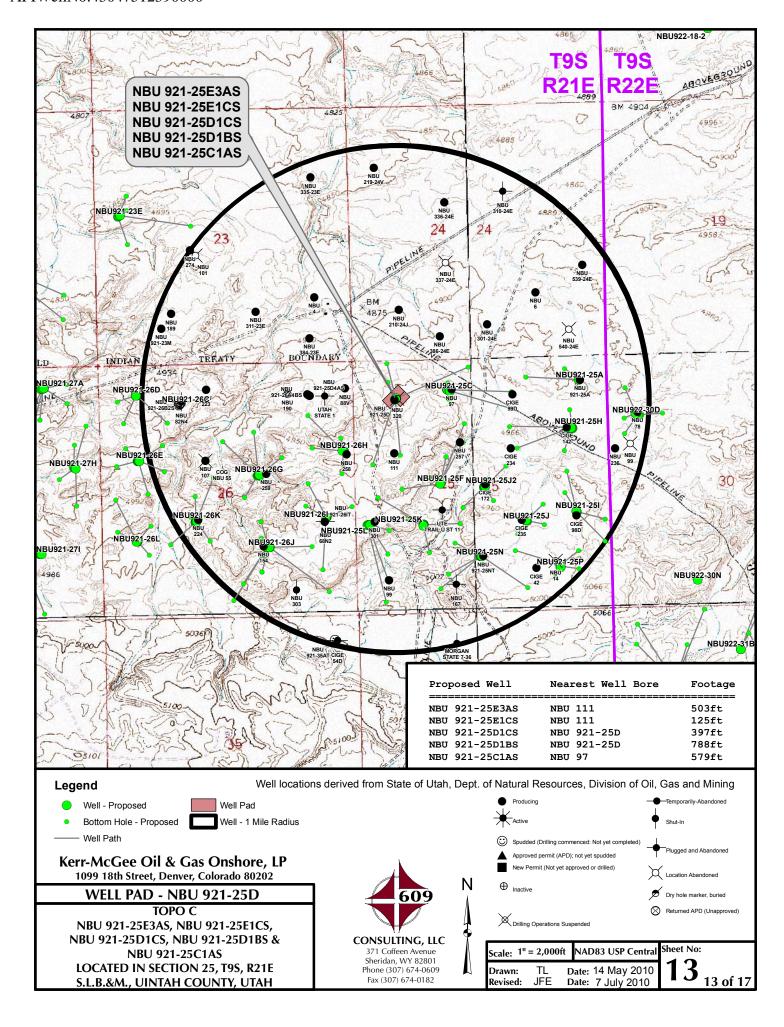
(435) 789-1365

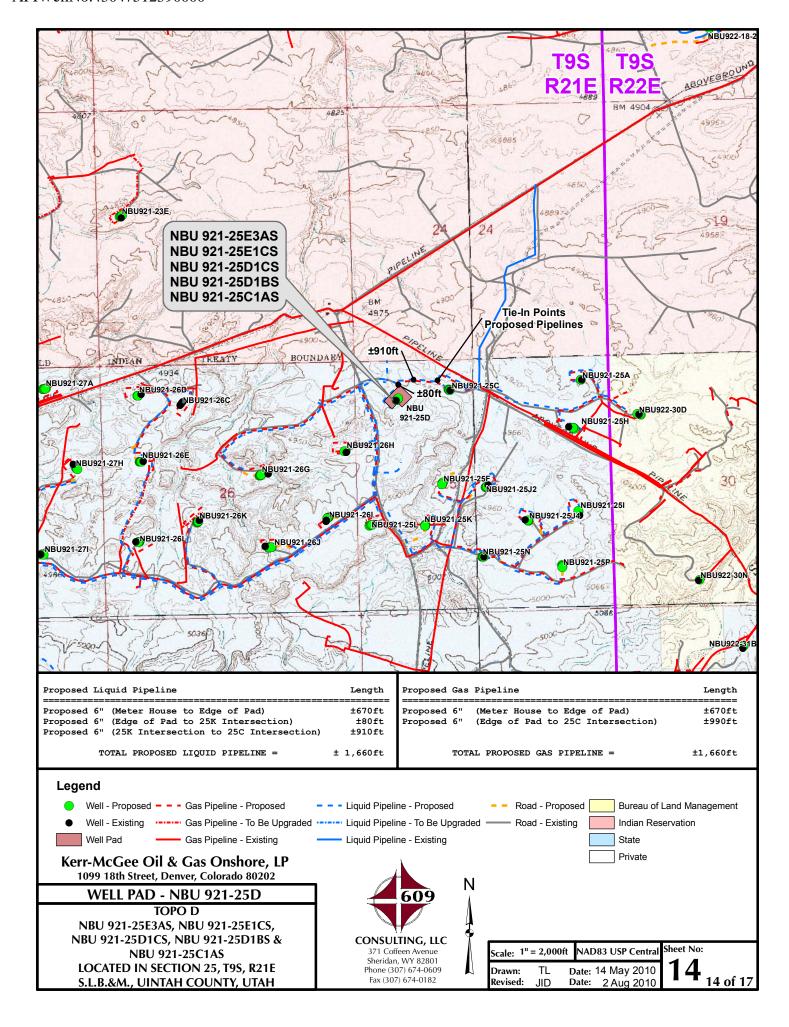
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

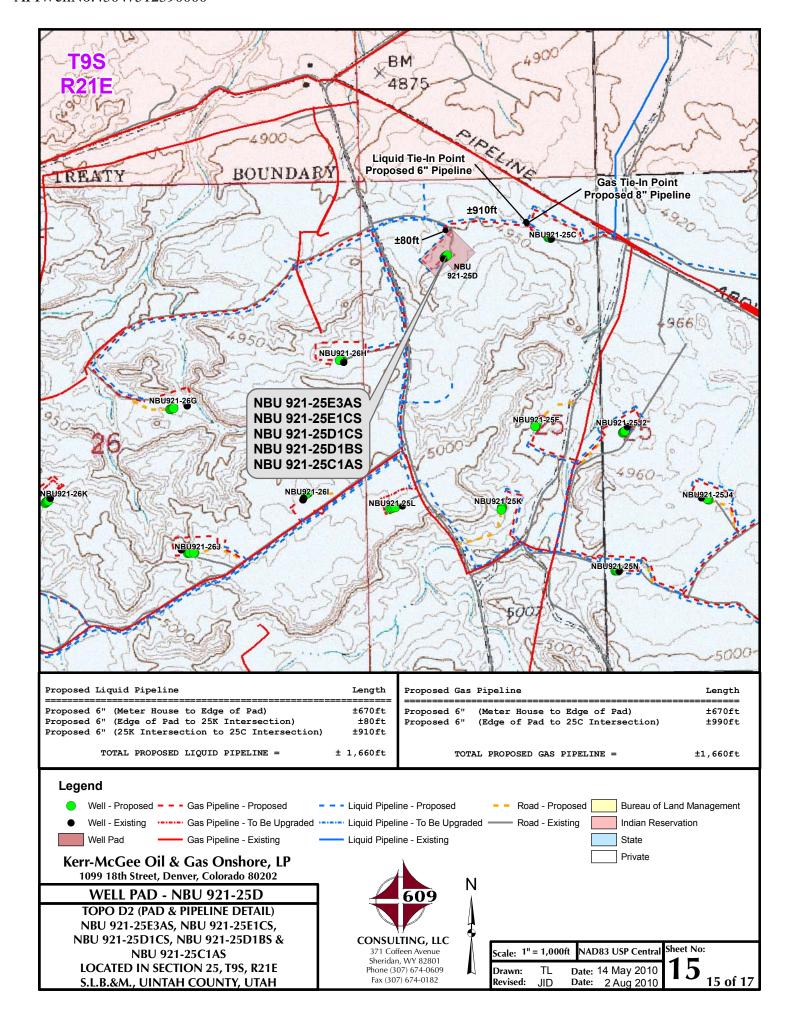
ш			
	DATE PHOTOS TAKEN: 4-7-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
	DATE DRAWN: 4-12-10	DRAWN BY: K.O.B.	10
	Date Last Revised: 06-10-1	0 K.O.B.	10 OF 17

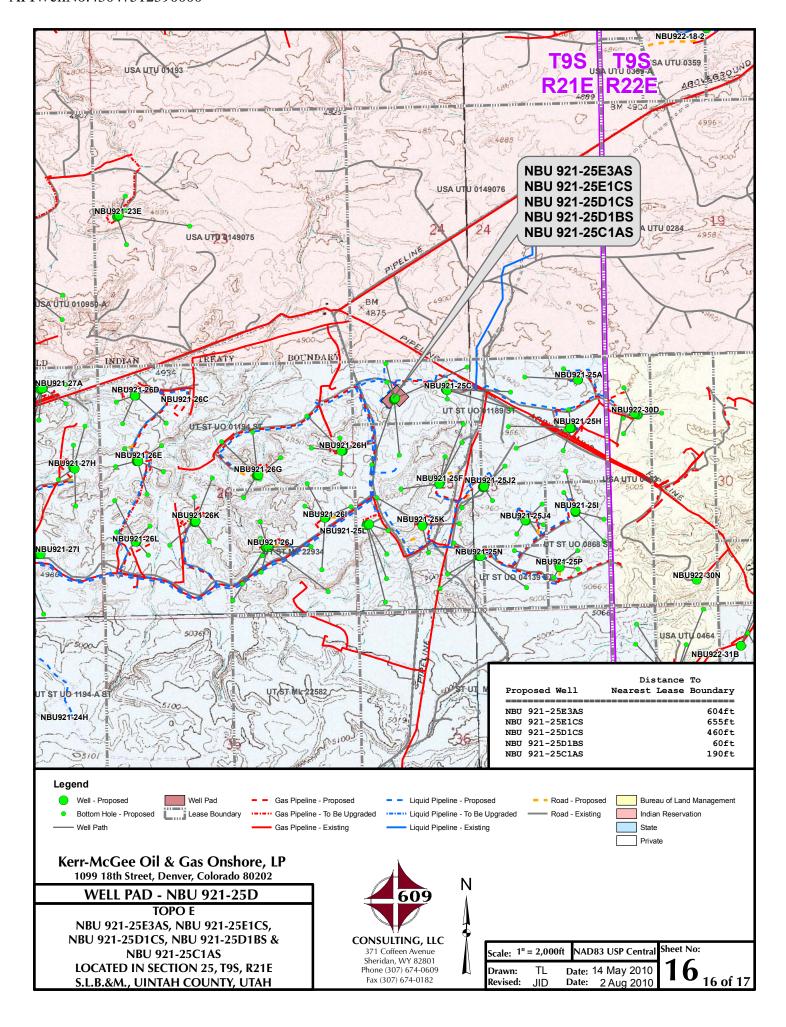












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 921-25D WELLS – NBU 921-25E3AS, NBU 921-25E1CS, NBU 921-25D1CS, NBU 921-25D1BS & NBU 921-25C1AS Section 25, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.0 miles to a service road to the east. Exit left and proceed in an easterly direction along service road approximately 0.2 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 41.7 miles in a southerly direction.

Project: Uintah County, UT UTM12

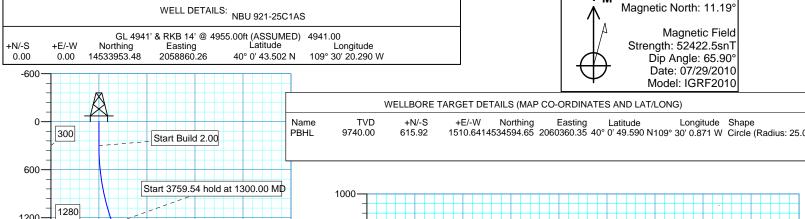
Site: NBU 921-25D Pad Well: NBU 921-25C1AS

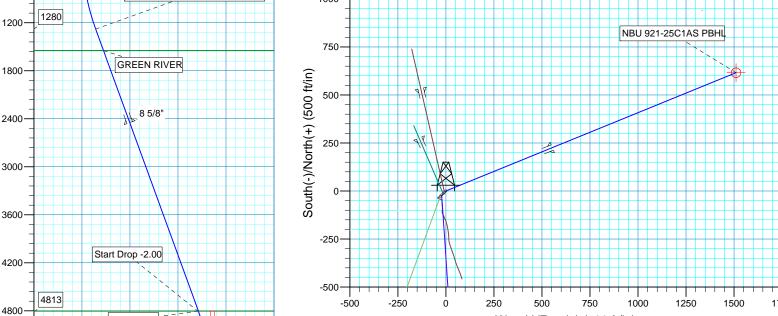
Wellbore: OH Design: Plan #1

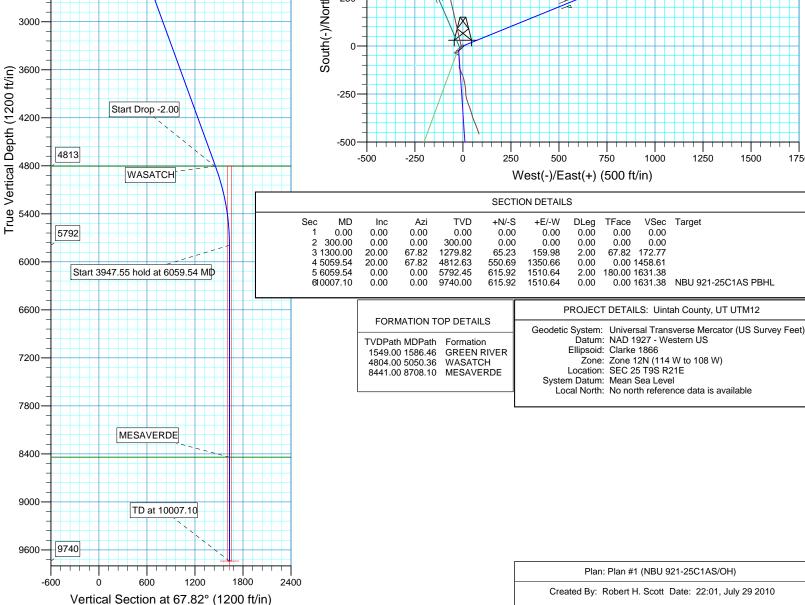


Kerr McGee Oil and Gas Onshore LP











Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-25D Pad NBU 921-25C1AS OH

Plan: Plan #1

Standard Planning Report

29 July, 2010







EDM 2003.16 Single User Db Database: Kerr McGee Oil and Gas Onshore LP

Company: Project: Uintah County, UT UTM12 Site: NBU 921-25D Pad

Well: NBU 921-25C1AS Wellbore: OH

Plan #1 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

Minimum Curvature

Uintah County, UT UTM12 Project

Map System: Universal Transverse Mercator (US Survey Fee System Datum: Mean Sea Level

NAD 1927 - Western US Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

Site NBU 921-25D Pad, SEC 25 T9S R21E

14,533,953.48ft Northing: 40° 0' 43.502 N Site Position: Latitude: 109° 30' 20.290 W From: Lat/Long Easting: 2,058,860.26ft Longitude: 0.00 ft 0.96° **Position Uncertainty:** Slot Radius: in **Grid Convergence:**

Well NBU 921-25C1AS, 800' FNL 893' FWL

Plan #1

Well Position +N/-S 0.00 ft Northing: 14,533,953.48 ft Latitude: 40° 0' 43.502 N +E/-W 0.00 ft 2,058,860.26 ft 109° 30' 20.290 W Easting: Longitude:

0.00 ft 4,941.00 ft **Position Uncertainty** Wellhead Elevation: ft **Ground Level:**

Wellbore OH

Design

Magnetics Model Name Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 07/29/2010 11.19 65.90 52,423

Audit Notes:

PLAN 0.00 Version: Tie On Depth: Phase: **Vertical Section:** +N/-S Direction Depth From (TVD) +E/-W

(ft) (ft) (ft) (°) 0.00 0.00 67.82 0.00

Plan Sections Measured Vertical Dogleg **Build** Turn Inclination +N/-S Rate Depth **Azimuth** Depth +E/-W Rate Rate **TFO** (°/100ft) (ft) (°) (ft) (ft) (ft) (°/100ft) (°/100ft) **Target** (°) (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 1,300.00 20.00 67.82 1,279.82 65.23 159.98 2.00 2.00 0.00 67.82 20.00 67.82 4,812.63 550.69 1,350.66 0.00 0.00 0.00 0.00 5,059.54 6,059.54 0.00 0.00 615.92 2.00 -2.00 0.00 180.00 5,792.45 1,510.64 10.007.10 0.00 0.00 0.00 NBU 921-25C1AS I 0.00 0.00 9,740.00 615.92 1,510.64 0.00





Database: Company:

EDM 2003.16 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-25D Pad
Well: NBU 921-25C1AS

Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

True

gn. '	ιαπ <i>π</i> ι								
ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 300.00	0.00 0.00	0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Start Buil 400.00		67.82	399.98	0.66	1.62	1.75	2.00	2.00	0.00
500.00 600.00 700.00 800.00 900.00	4.00 6.00 8.00 10.00	67.82 67.82 67.82 67.82 67.82	499.84 599.45 698.70 797.47 895.62	2.63 5.93 10.53 16.43 23.64	6.46 14.53 25.82 40.30 57.97	6.98 15.69 27.88 43.52 62.60	2.00 2.00 2.00 2.00 2.00 2.00	2.00 2.00 2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00 0.00
1,000.00 1,100.00 1,200.00 1,300.00	14.00 16.00 18.00 20.00	67.82 67.82 67.82 67.82	993.06 1,089.64 1,185.27 1,279.82	32.13 41.90 52.94 65.23	78.80 102.76 129.84 159.98	85.10 110.98 140.21 172.77	2.00 2.00 2.00 2.00	2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00
Start 3759 1,400.00	9.54 hold at 130 20.00	00.00 MD 67.82	1,373.78	78.14	191.65	206.97	0.00	0.00	0.00
1,500.00 1,586.46	20.00 20.00	67.82 67.82	1,467.75 1,549.00	91.05 102.22	223.32 250.71	241.17 270.74	0.00 0.00	0.00 0.00	0.00 0.00
GREEN R		67.00	1 561 70	102.07	254.00	075 07	0.00	0.00	0.00
1,600.00 1,700.00 1,800.00	20.00	67.82 67.82 67.82	1,561.72 1,655.69 1,749.66	103.97 116.88 129.79	254.99 286.66 318.34	275.37 309.58 343.78	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1,900.00 2,000.00 2,100.00 2,200.00 2,300.00	20.00 20.00 20.00	67.82 67.82 67.82 67.82 67.82	1,843.63 1,937.60 2,031.57 2,125.54 2,219.51	142.71 155.62 168.53 181.44 194.36	350.01 381.68 413.35 445.02 476.69	377.98 412.18 446.38 480.59 514.79	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,400.00 2,500.00 2,545.28	20.00	67.82 67.82 67.82	2,313.48 2,407.45 2,450.00	207.27 220.18 226.03	508.36 540.03 554.37	548.99 583.19 598.68	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8 5/8"	20.00	07.00	0.504.40	000.40	F74 70	047.00	0.00	0.00	0.00
2,600.00 2,700.00		67.82 67.82	2,501.42 2,595.39	233.10 246.01	571.70 603.37	617.39 651.60	0.00 0.00	0.00 0.00	0.00 0.00
2,800.00 2,900.00 3,000.00 3,100.00 3,200.00	20.00 20.00 20.00	67.82 67.82 67.82 67.82 67.82	2,689.35 2,783.32 2,877.29 2,971.26 3,065.23	258.92 271.83 284.75 297.66 310.57	635.04 666.71 698.38 730.05 761.73	685.80 720.00 754.20 788.40 822.61	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,300.00 3,400.00 3,500.00 3,600.00 3,700.00	20.00 20.00 20.00	67.82 67.82 67.82 67.82 67.82	3,159.20 3,253.17 3,347.14 3,441.11 3,535.08	323.49 336.40 349.31 362.22 375.14	793.40 825.07 856.74 888.41 920.08	856.81 891.01 925.21 959.41 993.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,800.00 3,900.00 4,000.00 4,100.00 4,200.00	20.00 20.00 20.00	67.82 67.82 67.82 67.82 67.82	3,629.05 3,723.02 3,816.99 3,910.95 4,004.92	388.05 400.96 413.88 426.79 439.70	951.75 983.42 1,015.09 1,046.76 1,078.43	1,027.82 1,062.02 1,096.22 1,130.42 1,164.63	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
4,300.00 4,400.00 4,500.00 4,600.00	20.00 20.00	67.82 67.82 67.82 67.82	4,098.89 4,192.86 4,286.83 4,380.80	452.61 465.53 478.44 491.35	1,110.10 1,141.77 1,173.44 1,205.12	1,198.83 1,233.03 1,267.23 1,301.43	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00





Database: Company: EDM 2003.16 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-25D Pad
Well: NBU 921-25C1AS

Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

True

ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	20.00	67.82	4,474.77	504.27	1,236.79	1,335.64	0.00	0.00	0.00
4,800.00 4,900.00 5,000.00	20.00 20.00 20.00	67.82 67.82 67.82	4,568.74 4,662.71 4,756.68	517.18 530.09 543.00	1,268.46 1,300.13 1,331.80	1,369.84 1,404.04 1,438.24	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
5,050.36 WASATCH	20.00	67.82	4,804.00	549.51	1,347.75	1,455.47	0.00	0.00	0.00
5,059.54	20.00	67.82	4,812.63	550.69	1,350.66	1,458.61	0.00	0.00	0.00
Start Drop	-2.00								
5,100.00 5,200.00 5,300.00 5,400.00 5,500.00	19.19 17.19 15.19 13.19 11.19	67.82 67.82 67.82 67.82 67.82	4,850.74 4,945.74 5,041.77 5,138.71 5,236.45	555.82 567.60 578.13 587.38 595.36	1,363.22 1,392.13 1,417.95 1,440.65 1,460.20	1,472.18 1,503.39 1,531.27 1,555.79 1,576.90	2.00 2.00 2.00 2.00 2.00	-2.00 -2.00 -2.00 -2.00 -2.00	0.00 0.00 0.00 0.00 0.00
5,600.00 5,700.00 5,800.00 5,900.00 6,000.00	9.19 7.19 5.19 3.19 1.19	67.82 67.82 67.82 67.82 67.82	5,334.87 5,433.85 5,533.26 5,632.99 5,732.91	602.04 607.41 611.49 614.24 615.69	1,476.58 1,489.77 1,499.76 1,506.53 1,510.07	1,594.60 1,608.84 1,619.63 1,626.93 1,630.76	2.00 2.00 2.00 2.00 2.00	-2.00 -2.00 -2.00 -2.00 -2.00	0.00 0.00 0.00 0.00 0.00
6,059.54	0.00	0.00	5,792.45	615.92	1,510.64	1,631.38	2.00	-2.00	0.00
	.55 hold at 605								
6,100.00 6,200.00 6,300.00 6,400.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	5,832.90 5,932.90 6,032.90 6,132.90	615.92 615.92 615.92 615.92	1,510.64 1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
6,500.00 6,600.00 6,700.00 6,800.00 6,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,232.90 6,332.90 6,432.90 6,532.90 6,632.90	615.92 615.92 615.92 615.92 615.92	1,510.64 1,510.64 1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,732.90 6,832.90 6,932.90 7,032.90 7,132.90	615.92 615.92 615.92 615.92 615.92	1,510.64 1,510.64 1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	7,232.90 7,332.90 7,432.90 7,532.90 7,632.90	615.92 615.92 615.92 615.92 615.92	1,510.64 1,510.64 1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
8,000.00 8,100.00 8,200.00 8,300.00 8,400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	7,732.90 7,832.90 7,932.90 8,032.90 8,132.90	615.92 615.92 615.92 615.92 615.92	1,510.64 1,510.64 1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
8,500.00 8,600.00 8,700.00 8,708.10	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	8,232.90 8,332.90 8,432.90 8,441.00	615.92 615.92 615.92 615.92	1,510.64 1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
MESAVER 8,800.00	. DE	0.00	8,532.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
8,900.00 9,000.00 9,100.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	8,632.90 8,732.90 8,832.90	615.92 615.92 615.92	1,510.64 1,510.64 1,510.64	1,631.38 1,631.38 1,631.38	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-25D Pad NBU 921-25C1AS OH

Plan: Plan #1

Standard Planning Report - Geographic

29 July, 2010







EDM 2003.16 Single User Db Database:

Company: Kerr McGee Oil and Gas Onshore LP Project: Uintah County, UT UTM12

Site: NBU 921-25D Pad Well: NBU 921-25C1AS Wellbore: OH

Design:

Design

TVD Reference: MD Reference: North Reference: **Survey Calculation Method:**

Local Co-ordinate Reference:

Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

Minimum Curvature

Project Uintah County, UT UTM12

Plan #1

Map System: Universal Transverse Mercator (US Survey Fee System Datum: Mean Sea Level

NAD 1927 - Western US Geo Datum: Map Zone: Zone 12N (114 W to 108 W)

Site NBU 921-25D Pad, SEC 25 T9S R21E

14,533,953.48ft Site Position: Northing: Latitude: 40° 0' 43.502 N Lat/Long 109° 30' 20.290 W From: Easting: 2,058,860.26ft Longitude:

Position Uncertainty: 0.00 ft Slot Radius: **Grid Convergence:** 0.96°

Well NBU 921-25C1AS, 800' FNL 893' FWL

Plan #1

Well Position +N/-S 0.00 ft Northing: 14,533,953.48 ft Latitude: 40° 0' 43.502 N +E/-W 0.00 ft Easting: 2,058,860.26 ft Longitude: 109° 30' 20.290 W

Position Uncertainty 0.00 ft Wellhead Elevation: ft **Ground Level:** 4,941.00 ft

Wellbore ОН **Magnetics Model Name** Sample Date **Declination Dip Angle** Field Strength (°) (°) (nT) IGRF2010 07/29/2010 65.90 52,423 11.19

Audit Notes: 0.00 Version: Phase: **PLAN** Tie On Depth:

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 67.82

Plan Sections Vertical Build Measured Turn Dogleg Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate **TFO** (ft) (°) (ft) (ft) (ft) (°/100ft) (°/100ft) (°/100ft) (°) (°) **Target** 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 0.00 1,279.82 20.00 67.82 65.23 159.98 2.00 2.00 0.00 67.82 1,300.00 5,059.54 20.00 67.82 4,812.63 550.69 1,350.66 0.00 0.00 0.00 0.00 6,059.54 0.00 0.00 5,792.45 615.92 1,510.64 2.00 -2.00 0.00 180.00 0.00 9,740.00 615.92 0.00 0.00 0.00 NBU 921-25C1AS I 10,007.10 0.00 1,510.64 0.00





Database: Company:

EDM 2003.16 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-25D Pad
Well: NBU 921-25C1AS

Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

True

Planned Surv	ey								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00		0.00	0.00	0.00	0.00	14,533,953.48	2,058,860.26	40° 0' 43.502 N	109° 30' 20.290 W
100.00		0.00	100.00	0.00	0.00	14,533,953.48	2,058,860.26	40° 0' 43.502 N	109° 30' 20.290 W
200.00		0.00	200.00	0.00	0.00	14,533,953.48	2,058,860.26	40° 0' 43.502 N	109° 30' 20.290 W
300.00	0.00 uild 2.00	0.00	300.00	0.00	0.00	14,533,953.48	2,058,860.26	40° 0' 43.502 N	109° 30' 20.290 W
400.00		67.82	399.98	0.66	1.62	14,533,954.16	2,058,861.87	40° 0' 43.509 N	109° 30' 20.269 W
500.00		67.82	499.84	2.63	6.46	14,533,956.22	2,058,866.68	40° 0' 43.528 N	109° 30' 20.207 W
600.00		67.82	599.45	5.93	14.53	14,533,959.64	2,058,874.69	40° 0' 43.561 N	109° 30' 20.103 W
700.00		67.82	698.70	10.53	25.82	14,533,964.43	2,058,885.90	40° 0' 43.606 N	109° 30' 19.958 W
800.00		67.82	797.47	16.43	40.30	14,533,970.58	2,058,900.28	40° 0' 43.665 N	109° 30' 19.772 W
900.00		67.82	895.62	23.64	57.97	14,533,978.08	2,058,917.83	40° 0' 43.736 N	109° 30' 19.544 W
1,000.00 1,100.00		67.82 67.82	993.06 1,089.64	32.13 41.90	78.80 102.76	14,533,986.92 14,533,997.09	2,058,938.51 2,058,962.31	40° 0' 43.820 N 40° 0' 43.917 N	109° 30' 19.277 W 109° 30' 18.969 W
1,200.00		67.82	1,089.04	52.94	129.84	14,534,008.58	2,058,989.19	40° 0' 44.026 N	109° 30' 18.621 W
1,300.00		67.82	1,279.82	65.23	159.98	14,534,021.38	2,059,019.13	40° 0' 44.147 N	109° 30' 18.233 W
•	759.54 hold		•						
1,400.00	20.00	67.82	1,373.78	78.14	191.65	14,534,034.82	2,059,050.58	40° 0' 44.275 N	109° 30' 17.826 W
1,500.00		67.82	1,467.75	91.05	223.32	14,534,048.26	2,059,082.02	40° 0' 44.402 N	109° 30' 17.419 W
1,586.46		67.82	1,549.00	102.22	250.71	14,534,059.88	2,059,109.22	40° 0' 44.513 N	109° 30' 17.067 W
	I RIVER	67.00	1 561 70	102.07	254.00	14 524 064 70	2.050.442.47	40° 0' 44 520 N	400° 20' 47 042 W
1,600.00 1,700.00		67.82 67.82	1,561.72 1,655.69	103.97 116.88	254.99 286.66	14,534,061.70 14,534,075.15	2,059,113.47 2,059,144.92	40° 0' 44.530 N 40° 0' 44.658 N	109° 30' 17.012 W 109° 30' 16.605 W
1,800.00		67.82	1,749.66	129.79	318.34	14,534,073.13	2,059,176.37	40° 0' 44.785 N	109° 30′ 16.003 W
1,900.00		67.82	1,843.63	142.71	350.01	14,534,102.03	2,059,207.82	40° 0' 44.913 N	109° 30' 15.791 W
2,000.00		67.82	1,937.60	155.62	381.68	14,534,115.47	2,059,239.27	40° 0' 45.041 N	109° 30' 15.383 W
2,100.00	20.00	67.82	2,031.57	168.53	413.35	14,534,128.92	2,059,270.72	40° 0' 45.168 N	109° 30' 14.976 W
2,200.00		67.82	2,125.54	181.44	445.02	14,534,142.36	2,059,302.17	40° 0' 45.296 N	109° 30' 14.569 W
2,300.00		67.82	2,219.51	194.36	476.69	14,534,155.80	2,059,333.62	40° 0' 45.423 N	109° 30' 14.162 W
2,400.00		67.82	2,313.48	207.27	508.36	14,534,169.24	2,059,365.07	40° 0' 45.551 N	109° 30' 13.755 W
2,500.00 2,545.28		67.82 67.82	2,407.45 2,450.00	220.18 226.03	540.03 554.37	14,534,182.68 14,534,188.77	2,059,396.52 2,059,410.76	40° 0' 45.679 N 40° 0' 45.737 N	109° 30' 13.348 W 109° 30' 13.164 W
8 5/8"	20.00	07.02	2,430.00	220.00	334.37	14,554,100.77	2,033,410.70	40 0 40.707 1	103 30 13.104 11
2,600.00	20.00	67.82	2,501.42	233.10	571.70	14,534,196.13	2,059,427.97	40° 0' 45.806 N	109° 30' 12.941 W
2,700.00		67.82	2,595.39	246.01	603.37	14,534,209.57	2,059,459.42	40° 0' 45.934 N	109° 30' 12.534 W
2,800.00	20.00	67.82	2,689.35	258.92	635.04	14,534,223.01	2,059,490.87	40° 0' 46.062 N	109° 30' 12.127 W
2,900.00		67.82	2,783.32	271.83	666.71	14,534,236.45	2,059,522.32	40° 0' 46.189 N	109° 30' 11.719 W
3,000.00		67.82	2,877.29	284.75	698.38	14,534,249.89	2,059,553.77	40° 0' 46.317 N	109° 30' 11.312 W
3,100.00		67.82	2,971.26	297.66	730.05	14,534,263.34	2,059,585.22	40° 0' 46.445 N	109° 30' 10.905 W
3,200.00 3,300.00		67.82 67.82	3,065.23 3,159.20	310.57 323.49	761.73 793.40	14,534,276.78 14,534,290.22	2,059,616.67 2,059,648.12	40° 0' 46.572 N 40° 0' 46.700 N	109° 30' 10.498 W 109° 30' 10.091 W
3,400.00		67.82	3,253.17	336.40	825.07	14,534,303.66	2,059,679.57	40° 0' 46.827 N	109° 30' 9.684 W
3,500.00		67.82	3,347.14	349.31	856.74	14,534,317.11	2,059,711.02	40° 0' 46.955 N	109° 30' 9.277 W
3,600.00		67.82	3,441.11	362.22	888.41	14,534,330.55	2,059,742.47	40° 0' 47.083 N	109° 30' 8.870 W
3,700.00		67.82	3,535.08	375.14	920.08	14,534,343.99	2,059,773.92	40° 0' 47.210 N	109° 30' 8.463 W
3,800.00		67.82	3,629.05	388.05	951.75	14,534,357.43	2,059,805.37	40° 0' 47.338 N	109° 30' 8.056 W
3,900.00		67.82	3,723.02	400.96	983.42	14,534,370.87	2,059,836.82	40° 0' 47.466 N	109° 30' 7.648 W
4,000.00		67.82	3,816.99	413.88	1,015.09	14,534,384.32	2,059,868.27	40° 0' 47.593 N	109° 30' 7.241 W
4,100.00 4,200.00		67.82 67.82	3,910.95 4,004.92	426.79 439.70	1,046.76 1,078.43	14,534,397.76 14,534,411.20	2,059,899.72 2,059,931.17	40° 0' 47.721 N 40° 0' 47.848 N	109° 30' 6.834 W 109° 30' 6.427 W
4,200.00		67.82	4,004.92	452.61	1,110.10	14,534,424.64	2,059,962.61	40° 0' 47.976 N	109° 30′ 6.020 W
4,400.00		67.82	4,192.86	465.53	1,141.77	14,534,438.09	2,059,994.06	40° 0' 48.104 N	109° 30' 5.613 W
4,500.00		67.82	4,286.83	478.44	1,173.44	14,534,451.53	2,060,025.51	40° 0' 48.231 N	109° 30' 5.206 W
4,600.00		67.82	4,380.80	491.35	1,205.12	14,534,464.97	2,060,056.96	40° 0' 48.359 N	109° 30' 4.799 W
4,700.00	20.00	67.82	4,474.77	504.27	1,236.79	14,534,478.41	2,060,088.41	40° 0' 48.486 N	109° 30' 4.391 W





Database: Company:

EDM 2003.16 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-25D Pad
Well: NBU 921-25C1AS

Well: NBU 92 Wellbore: OH Design: Plan #1 **Local Co-ordinate Reference:**

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

True

Design.									
Planned Surv	/ey								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,800.00	20.00	67.82	4,568.74	517.18	1,268.46	14,534,491.85	2,060,119.86	40° 0' 48.614 N	109° 30' 3.984 W
4,900.00	20.00	67.82	4,662.71	530.09	1,300.13	14,534,505.30	2,060,151.31	40° 0' 48.742 N	109° 30' 3.577 W
5,000.00	20.00	67.82	4,756.68	543.00	1,331.80	14,534,518.74	2,060,182.76	40° 0' 48.869 N	109° 30' 3.170 W
5,050.36	20.00	67.82	4,804.00	549.51	1,347.75	14,534,525.51	2,060,198.60	40° 0' 48.934 N	109° 30' 2.965 W
WASA	ТСН								
5,059.54	20.00	67.82	4,812.63	550.69	1,350.66	14,534,526.74	2,060,201.49	40° 0' 48.945 N	109° 30' 2.928 W
Start D	rop -2.00								
5,100.00		67.82	4,850.74	555.82	1,363.22	14,534,532.08	2,060,213.96	40° 0' 48.996 N	109° 30' 2.766 W
5,200.00		67.82	4,945.74	567.60	1,392.13	14,534,544.34	2,060,242.67	40° 0' 49.112 N	109° 30' 2.395 W
5,300.00		67.82	5,041.77	578.13	1,417.95	14,534,555.30	2,060,268.31	40° 0' 49.216 N	109° 30' 2.063 W
5,400.00		67.82	5,138.71	587.38	1,440.65	14,534,564.94	2,060,290.85	40° 0' 49.308 N	109° 30' 1.771 W
5,500.00		67.82	5,236.45	595.36	1,460.20	14,534,573.24	2,060,310.27	40° 0' 49.387 N	109° 30' 1.520 W
5,600.00		67.82	5,334.87	602.04	1,476.58	14,534,580.19	2,060,326.53	40° 0' 49.453 N	109° 30' 1.309 W
5,700.00		67.82	5,433.85	607.41	1,489.77	14,534,585.79	2,060,339.63	40° 0' 49.506 N	109° 30' 1.139 W
5,800.00		67.82	5,533.26	611.49	1,499.76	14,534,590.03	2,060,349.55	40° 0' 49.546 N	109° 30' 1.011 W
5,900.00		67.82	5,632.99	614.24	1,506.53	14,534,592.90	2,060,356.27	40° 0' 49.573 N	109° 30' 0.924 W
6,000.00		67.82	5,732.91	615.69	1,510.07	14,534,594.40	2,060,359.78	40° 0' 49.588 N	109° 30' 0.879 W
6,059.54		0.00	5,792.45	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
	947.55 hold			045.00	4 540 04	44 504 504 05	0.000.000.05	400 OL 40 FOO N	4000 001 0 074 144
6,100.00		0.00	5,832.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
6,200.00		0.00	5,932.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
6,300.00		0.00	6,032.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
6,400.00 6,500.00		0.00 0.00	6,132.90 6,232.90	615.92 615.92	1,510.64 1,510.64	14,534,594.65 14,534,594.65	2,060,360.35 2,060,360.35	40° 0' 49.590 N 40° 0' 49.590 N	109° 30' 0.871 W 109° 30' 0.871 W
6,600.00		0.00	6,332.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30′ 0.871 W
6,700.00		0.00	6,432.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
6,800.00		0.00	6,532.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
6,900.00		0.00	6,632.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,000.00		0.00	6,732.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,100.00		0.00	6,832.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,200.00		0.00	6,932.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,300.00		0.00	7,032.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,400.00	0.00	0.00	7,132.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,500.00		0.00	7,232.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,600.00	0.00	0.00	7,332.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,700.00	0.00	0.00	7,432.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,800.00		0.00	7,532.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
7,900.00		0.00	7,632.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,000.00		0.00	7,732.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,100.00		0.00	7,832.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,200.00		0.00	7,932.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,300.00		0.00	8,032.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,400.00		0.00	8,132.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,500.00		0.00	8,232.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,600.00		0.00	8,332.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,700.00		0.00	8,432.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,708.10		0.00	8,441.00	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
MESA		0.00	0.500.00	045.00	4 540 0 :	44 504 504 65	0.000.000.00	400 01 40 500 11	4000 001 0 074 111
8,800.00		0.00	8,532.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
8,900.00		0.00	8,632.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,000.00		0.00	8,732.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,100.00 9,200.00		0.00	8,832.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W 109° 30' 0.871 W
		0.00	8,932.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	
9,300.00	0.00	0.00	9,032.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W





Database: Company: EDM 2003.16 Single User Db

Kerr McGee Oil and Gas Onshore LP Uintah County, UT UTM12

Project: Site: NBU 921-25D Pad Well: NBU 921-25C1AS

Wellbore: OH Plan #1 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

True

anned Surv Measured Depth (ft)	ey Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
9,400.00	0.00	0.00	9,132.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,500.00	0.00	0.00	9,232.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,600.00	0.00	0.00	9,332.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,700.00	0.00	0.00	9,432.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,800.00	0.00	0.00	9,532.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
9,900.00	0.00	0.00	9,632.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
10,000.00	0.00	0.00	9,732.90	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W
10,007.10	0.00	0.00	9,740.00	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 V
NBU 92	21-25C1AS P	BHL							

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 921-25C1AS PE	3 0.00	0.00	9,740.00	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W

- plan hits target center
 Circle (radius 25.00)

Casing Points							
	Measured	Vertical			Casing	Hole	
	Depth	Depth			Diameter	Diameter	
	(ft)	(ft)		Name	(in)	(in)	
	2,545.28	2,450.00	8 5/8"		8.625	11.000	

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	8,708.10	•	MESAVERDE				
	1,586.46 5,050.36		GREEN RIVER WASATCH				

Plan Annotations					
Measured Depth (ft)		Vertical Depth (ft)	epth +N/-S		Comment
1,30 5,09 6,09	00.00 00.00 59.54 59.54 07.10	300.00 1,279.82 4,812.63 5,792.45 9,740.00	0.00 65.23 550.69 615.92 615.92	0.00 159.98 1,350.66 1,510.64 1,510.64	Start Build 2.00 Start 3759.54 hold at 1300.00 MD Start Drop -2.00 Start 3947.55 hold at 6059.54 MD TD at 10007.10





Database: Company: EDM 2003.16 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12

NBU 921-25D Pad Well: NBU 921-25C1AS

Wellbore: OH Plan #1 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-25C1AS

GL 4941' & RKB 14' @ 4955.00ft (ASSUMED) GL 4941' & RKB 14' @ 4955.00ft (ASSUMED)

Planned Survey									
Measured Depth (ft)	Inclination Azimuth Depth (°) (°) (ft)			Depth +N/-S +E/-W			Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,200.00	0.00	0.00	8,932.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
9,300.00	0.00	0.00	9,032.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
9,400.00	0.00	0.00	9,132.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
9,500.00	0.00	0.00	9,232.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
9,600.00	0.00	0.00	9,332.90	615.92	1,510.64	1.631.38	0.00	0.00	0.00
9,700.00	0.00	0.00	9,432.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
9,800.00	0.00	0.00	9,532.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
9,900.00	0.00	0.00	9,632.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
10,000.00	0.00	0.00	9,732.90	615.92	1,510.64	1,631.38	0.00	0.00	0.00
10,007.10	0.00	0.00	9,740.00	615.92	1,510.64	1,631.38	0.00	0.00	0.00
NBU 921-2	25C1AS PBHL		,			•			

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 921-25C1AS PE		0.00	9,740.00	615.92	1,510.64	14,534,594.65	2,060,360.35	40° 0' 49.590 N	109° 30' 0.871 W

⁻ Circle (radius 25.00)

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (in)	Hole Diameter (in)	
	2,545.28	2,450.00	8 5/8"		8.625	11.000	

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	8,708.10 1,586.46	•	MESAVERDE GREEN RIVER				
	5,050.36	4,804.00	WASATCH				

Plan Annotations					
Measured	Vertical	Local Coordinates			
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
			• •		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,300.00	1,279.82	65.23	159.98	Start 3759.54 hold at 1300.00 MD	
5,059.54	4,812.63	550.69	1,350.66	Start Drop -2.00	
6,059.54	5,792.45	615.92	1,510.64	Start 3947.55 hold at 6059.54 MD	
10,007.10	9,740.00	615.92	1,510.64	TD at 10007.10	

NBU 921-25C1AS

Surface: 800' FNL 893' FWL (NW/4NW/4) BHL: 190' FNL 2,405' FWL (NE/4NW/4) Mineral Lease: UO 1189 ST

NBU 921-25D1BS

Surface: 807' FNL 885' FWL (NW/4NW/4) BHL: 60' FNL 716' FWL (NW/4NW/4) Mineral Lease: UO 1189 ST

NBU 921-25D1CS

Surface: 814' FNL 878' FWL (NW/4NW/4) BHL: 460' FNL 726' FWL (NW/4NW/4) Mineral Lease: UO 1189 ST

NBU 921-25E1CS

Surface: 821' FNL 871' FWL (NW/4NW/4) BHL: 1,976' FNL 947' FWL (SW/4NW/4) Mineral Lease: UO 1194 ST

NBU 921-25E3AS

Surface: 828' FNL 864' FWL (NW/4NW/4) BHL: 2,162' FNL 371' FWL (SW/4NW/4) Mineral Lease: UO 1194 ST

> Pad: NBU 921-25D Section 25 T9S R21E

Uintah County, Utah Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain

NBU 921-25C1AS / 25D1BS/ 25D1CS/ 25E1CS/ 25E3AS

existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road to this pad location is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. <u>Location of Existing and Proposed Facilities</u>:

This pad will expand the existing pad for the NBU 921-25D, which is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of August 12, 2010.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM. Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,660$ ' and the individual segments are broken up as follows:

 ± 670 ' (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. ± 990 ' (0.2 miles) –New 6" buried gas pipeline from the edge of pad to the NBU 921-25C pad intersection.

The total liquid gathering pipeline distance from the meter to the tie in point is $\pm 1,660$ ' and the individual segments are broken up as follows:

 ± 670 ' (0.1 miles) –New 6" buried liquid pipeline from the meter to the edge of the pad. ± 800 ' (0.2 miles) –New 6" buried liquid pipeline from the edge of pad to the NBU 921-25K pad intersection.

±910' (0.2 miles) –New 6" buried liquid pipeline from the NBU 921-25K pad intersection to the NBU 921-25C pad intersection.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

NBU 921-25C1AS / 25D1BS/ 25D1CS/ 25E1CS/ 25E3AS

D. <u>Location and Type of Water Supply:</u>

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E

Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E

Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E

NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

NBU 921-25C1AS / 25D1BS/ 25D1CS/ 25E1CS/ 25E3AS

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

NBU 921-25C1AS / 25D1BS/ 25D1CS/ 25E1CS/ 25E3AS

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for revegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

K. Other Information:

A Class I literature survey has been conducted by Montgomery Archaeological Consultants, Inc. (MOAC). For additional details please refer to report MOAC 10-125.

A paleontological reconnaissance has been completed by Intermountain Paleo-Consulting (IPC) and a report will be provided under separate cover.

A biological field survey was completed by Grasslands Consulting, Inc. on July 13, 2010. For additional details please refer to report GCI-289.

'APIWellNo:43047512390000'

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst I Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

August 13, 2010

Date

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 36 PROPOSED WELL LOCATIONS IN T9S, R21E, SECTION 25 (MOAC Report No. 10-125) UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

State of Utah
School and Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP 1368 South 1200 East Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 10-125

July 26, 2010

State of Utah Public Lands Policy Coordination Office Permit No. 117

United States Department of Interior (FLPMA)
Permit No. 10-UT-60122



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237 (303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report Number: GCI #289

Report Date: August 03, 2010

Operator: Kerr-McGee Oil & Gas Onshore LP

Well: NBU 921-25D well pad (Bores: NBU 921-25C1AS, NBU 921-25D1BS, NBU 921-

25D1CS, NBU 921-25E3AS, & NBU 921-25E1CS)

Pipeline: Associated pipeline leading to proposed well pad

Location: Section 25, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

Survey Date: July 13, 2010

Observers: Grasslands Consulting, Inc. Biologists: Brad Snopek, Jennie Sinclair, Jonathan

Sexauer, Adrienne Cunningham, Garrett Peterson and field technicians.





Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

July 15, 2010

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 921-25C1AS

T9S-R21E

Section 25: NWNW surface, NENW bottom hole

Surface: 800' FNL, 893' FWL Bottom Hole: 190' FNL, 2405' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-25C1AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance.
 Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

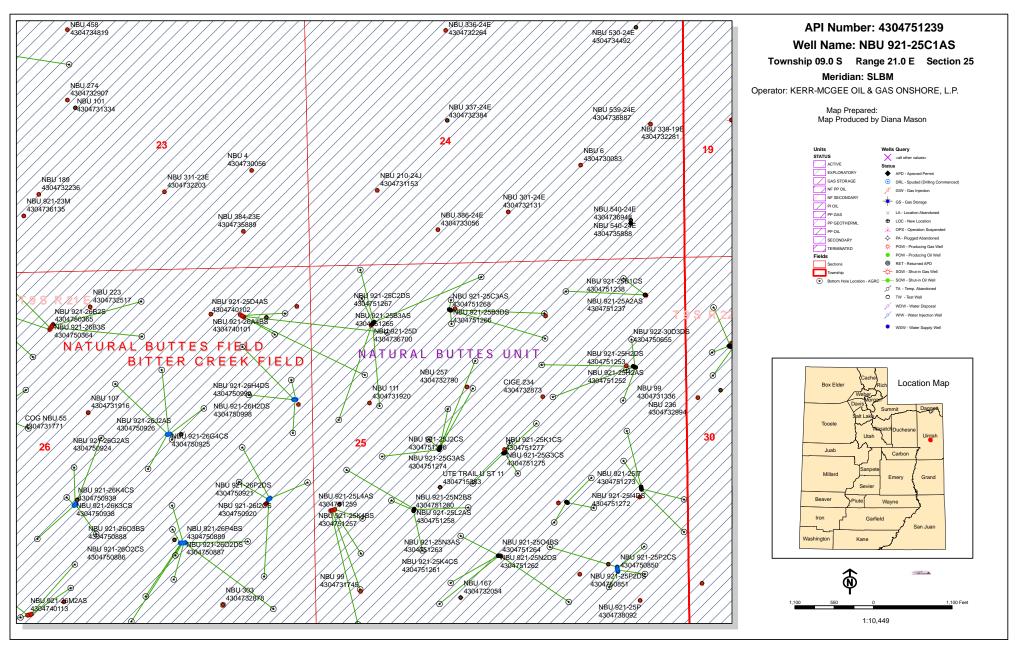
Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Sr. Staff Landman



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

August 17, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25A Pad

43-047-51237 NBU 921-25A2AS Sec 25 T09S R21E 0489 FNL 0565 FEL BHL Sec 25 T09S R21E 0252 FNL 0865 FEL

43-047-51238 NBU 921-25B1CS Sec 25 T09S R21E 0489 FNL 0575 FEL BHL Sec 25 T09S R21E 0416 FNL 1676 FEL

NBU 921-25D Pad

43-047-51239 NBU 921-25C1AS Sec 25 T09S R21E 0800 FNL 0893 FWL BHL Sec 25 T09S R21E 0190 FNL 2405 FWL

43-047-51240 NBU 921-25D1BS Sec 25 T09S R21E 0807 FNL 0885 FWL BHL Sec 25 T09S R21E 0060 FNL 0716 FWL

43-047-51241 NBU 921-25E1CS Sec 25 T09S R21E 0821 FNL 0871 FWL BHL Sec 25 T09S R21E 1976 FNL 0947 FWL

43-047-51242 NBU 921-25E3AS Sec 25 T09S R21E 0828 FNL 0864 FWL

BHL Sec 25 T09S R21E 2162 FNL 0371 FWL

43-047-51251 NBU 921-25D1CS Sec 25 T09S R21E 0814 FNL 0878 FWL BHL Sec 25 T09S R21E 0460 FNL 0726 FWL

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25F Pad

43-047-51243 NBU 921-25F1BS Sec 25 T09S R21E 2580 FNL 1780 FWL BHL Sec 25 T09S R21E 1366 FNL 2296 FWL 43-047-51244 NBU 921-25F1CS Sec 25 T09S R21E 2571 FNL 1784 FWL BHL Sec 25 T09S R21E 1754 FNL 2259 FWL 43-047-51245 NBU 921-25F3AS Sec 25 T09S R21E 2589 FNL 1776 FWL BHL Sec 25 T09S R21E 2034 FNL 1905 FWL BHL Sec 25 T09S R21E 2461 FNL 1628 FWL BHL Sec 25 T09S R21E 2461 FNL 1628 FWL 43-047-51247 NBU 921-25L1BS Sec 25 T09S R21E 2607 FNL 1768 FWL 43-047-51247 NBU 921-25L1BS Sec 25 T09S R21E 2607 FNL 1768 FWL

BHL Sec 25 T09S R21E 2597 FSL 0969 FWL

NBU 921-25H Pad

43-047-51248 NBU 921-25A3DS Sec 25 T09S R21E 1498 FNL 0736 FEL BHL Sec 25 T09S R21E 1110 FNL 0776 FEL 43-047-51249 NBU 921-25G1CS Sec 25 T09S R21E 1489 FNL 0754 FEL BHL Sec 25 T09S R21E 1489 FNL 1893 FEL 43-047-51250 NBU 921-25G2AS Sec 25 T09S R21E 1484 FNL 0763 FEL BHL Sec 25 T09S R21E 1439 FNL 2042 FEL BHL Sec 25 T09S R21E 1439 FNL 2042 FEL BHL Sec 25 T09S R21E 1439 FNL 0745 FEL BHL Sec 25 T09S R21E 1538 FNL 0857 FEL BHL Sec 25 T09S R21E 1538 FNL 0857 FEL BHL Sec 25 T09S R21E 1538 FNL 0857 FEL BHL Sec 25 T09S R21E 1502 FNL 0727 FEL BHL Sec 25 T09S R21E 1958 FNL 0913 FEL

NBU 921-25J Pad

43-047-51254 NBU 921-25J4AS Sec 25 T09S R21E 1878 FSL 1725 FEL BHL Sec 25 T09S R21E 1795 FSL 1360 FEL 43-047-51255 NBU 921-25J4CS Sec 25 T09S R21E 1886 FSL 1743 FEL BHL Sec 25 T09S R21E 1604 FSL 1920 FEL BHL Sec 25 T09S R21E 1882 FSL 1734 FEL BHL Sec 25 T09S R21E 2218 FSL 1381 FEL

NBU 921-25K Pad

43-047-51257 NBU 921-25K4BS Sec 25 T09S R21E 1838 FSL 1400 FWL BHL Sec 25 T09S R21E 1848 FSL 2161 FWL 43-047-51258 NBU 921-25L2AS Sec 25 T09S R21E 1848 FSL 1402 FWL BHL Sec 25 T09S R21E 2423 FSL 0465 FWL

API #	WE:	LL NAME				LOCA'	TION			
(Proposed PZ WASATCH-MESA VERDE)										
43-047-51259	NBU					R21E R21E				
43-047-51260	NBU					R21E R21E		_		
NBU 921-25N	Pad									
43-047-51261	NBU					R21E R21E		_		
43-047-51262	NBU					R21E R21E				FWL FWL
43-047-51263	NBU					R21E R21E				
43-047-51264	NBU					R21E R21E				
NBU 921-25C Pad										
43-047-51265	NBU					R21E R21E				
43-047-51266	NBU					R21E R21E				
43-047-51267	NBU					R21E R21E				
43-047-51268	NBU					R21E R21E				
NBU 921-251	Pad									
43-047-51269	NBU					R21E R21E				
43-047-51270	NBU					R21E R21E				
43-047-51271	NBU					R21E R21E				
43-047-51272	NBU					R21E R21E				
43-047-51273	NBU					R21E R21E				

API # WELL NAME

LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25J2 Pad

43-047-51274 NBU 921-25G3AS Sec 25 T09S R21E 2611 FSL 2578 FEL BHL Sec 25 T09S R21E 2265 FNL 2136 FEL 43-047-51275 NBU 921-25G3CS Sec 25 T09S R21E 2606 FSL 2587 FEL BHL Sec 25 T09S R21E 2530 FNL 2518 FEL BHL Sec 25 T09S R21E 2530 FNL 2518 FEL BHL Sec 25 T09S R21E 2601 FSL 2596 FEL BHL Sec 25 T09S R21E 2310 FSL 2410 FEL BHL Sec 25 T09S R21E 2596 FSL 2410 FEL BHL Sec 25 T09S R21E 2596 FSL 2605 FEL BHL Sec 25 T09S R21E 2596 FSL 2631 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn-Michael L. Coulthard, o-Bureau of Land Management, ou-Branch of Minerals,
small-Michael Coulthardgeloring opu c-US
pare-2010 Rg 17 J 145946, nG007

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:8-17-10

From: Jim Davis

To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana

CC: Bartlett, Floyd; Laura.Gianakos@anadarko.com; Piernot, Danielle; Upch...

Date: 9/2/2010 9:13 AM

Subject: SITLA approval of Kerr McGee wells **Attachments:** KMG approvals and paleo 9.1.2010.xlsx

The following wells have been approved by SITLA including arch clearance. Paleo clearance is also granted with stipulations as noted.

Full Paleo monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist.

```
NBU 922-29F4DS [API #4304751207] Full Monitoring IPC 10-08
 NBU 922-29G4CS [API #4304751208] Full Monitoring
                                                  IPC 10-08
 NBU 922-29J4BS [API #4304751209] Full Monitoring
                                                  IPC 10-08
 NBU 922-29K1DS [API #4304751210] Full Monitoring
                                                   IPC 10-08
 NBU 922-29G1AS [API #4304751194] Full Monitoring
                                                  IPC 10-06
 NBU 922-29G1DS [API #4304751195] Full Monitoring
                                                   IPC 10-06
 NBU 922-29G2BS [API #4304751196] Full Monitoring
                                                  IPC 10-06
 NBU 922-29G3BS [API #4304751197] Full Monitoring
                                                  IPC 10-06
NBU 921-25A3DS [API 4304751248]
                                                  IPC 10-21
                                    Full Monitoring
NBU 921-25G1CS [API 4304751249]
                                                  IPC 10-21
                                    Full Monitoring
NBU 921-25G2AS [API 4304751250]
                                                  IPC 10-21
                                    Full Monitoring
NBU 921-25H2AS [API 4304751252]
                                    Full Monitoring
                                                  IPC 10-21
NBU 921-25H2DS [API 4304751253]
                                    Full Monitoring
                                                  IPC 10-21
NBU 921-25G3AS [API 4304751274]
                                    Full Monitoring
                                                  IPC 10-23
NBU 921-25G3CS [API 4304751275]
                                                  IPC 10-23
                                    Full Monitoring
NBU 921-25J2CS [API 4304751276]
                                                  IPC 10-23
                                    Full Monitoring
NBU 921-25K1CS [API 4304751277]
                                                  IPC 10-23
                                    Full Monitoring
NBU 921-25A2AS [API 4304751237]
                                    Full Monitoring IPC 10-21
NBU 921-25B1CS [API 4304751238]
                                    Full Monitoring IPC 10-21
```

Spot Paleo Monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist at the beginning of construction and thereafter spot-monitored as paleontological conditions merit.

```
Spot Monitoring IPC 10-20
NBU 921-25C1AS [API 4304751239]
NBU 921-25D1BS [API 4304751240]
                                    Spot Monitoring IPC 10-20
                                    Spot Monitoring IPC 10-20
NBU 921-25D1CS [API 4304751251]
NBU 921-25E1CS [API 4304751241]
                                    Spot Monitoring IPC 10-20
                                    Spot Monitoring IPC 10-20
NBU 921-25E3AS [API 4304751242]
NBU 921-25F1BS [API 4304751243]
                                    Spot Monitoring IPC 10-21
NBU 921-25F1CS [API 4304751244]
                                    Spot Monitoring IPC 10-21
NBU 921-25F3AS [API 4304751245]
                                    Spot Monitoring IPC 10-21
NBU 921-25F3CS [API 4304751246]
                                    Spot Monitoring IPC 10-21
NBU 921-25L1BS [API 4304751247]
                                    Spot Monitoring IPC 10-21
NBU 921-25J1DS [API 4304751256]
                                    Spot Monitoring IPC 10-23
NBU 921-25J4AS [API 4304751254]
                                    Spot Monitoring IPC 10-23
NBU 921-25J4CS [API 4304751255]
                                    Spot Monitoring IPC 10-23
NBU 921-25K4BS [API 4304751257]
                                    Spot Monitoring IPC 10-22
NBU 921-25L2AS [API 4304751258]
                                    Spot Monitoring IPC 10-22
NBU 921-25L4AS [API 4304751259]
                                    Spot Monitoring IPC 10-22
                                    Spot Monitoring IPC 10-22
NBU 921-25N2BS [API 4304751260]
NBU 921-25K4CS [API 4304751261]
                                    Spot Monitoring IPC 10-23
NBU 921-25N2DS [API 4304751262]
                                    Spot Monitoring IPC 10-23
NBU 921-25N3AS [API 4304751263]
                                    Spot Monitoring IPC 10-23
```

```
NBU 921-25O4BS [API 4304751264]
                                    Spot Monitoring IPC 10-23
                                    Spot Monitoring IPC 10-20
NBU 921-25B3AS [API 4304751265]
NBU 921-25B3DS [API 4304751266]
                                    Spot Monitoring IPC 10-20
NBU 921-25C2DS [API 4304751267]
                                    Spot Monitoring IPC 10-20
                                    Spot Monitoring IPC 10-20
NBU 921-25C3AS [API 4304751268]
NBU 921-25IT [API 4304751273]
                                    Spot Monitoring IPC 10-23
NBU 921-25H3DS [API 4304751269]
                                    Spot Monitoring IPC 10-23
NBU 921-25I2AS [API 4304751270]
                                    Spot Monitoring IPC 10-23
NBU 921-25I4AS [API 4304751271]
                                    Spot Monitoring IPC 10-23
NBU 921-25I4DS [API 4304751272]
                                    Spot Monitoring IPC 10-23
NBU 922-29A1BS [API #4304751183]
                                    Spot Monitoring IPC 10-06
 NBU 922-29A1CS [API #4304751184] Spot Monitoring IPC 10-06
 NBU 922-29A4CS [API #4304751185] Spot Monitoring IPC 10-06
 NBU 922-29H1BS [API #4304751186] Spot Monitoring IPC 10-06
 NBU 922-29B2CS [API #4304751187] Spot Monitoring IPC 10-06
 NBU 922-29B4AS [API #4304751188] Spot Monitoring IPC 10-06
                                                             (SITLA surf/ Fed Min)
 NBU 922-29C2AS [API #4304751189] Spot Monitoring IPC 10-06
                                                             (SITLA surf/ Fed Min)
 NBU 922-29C4AS [API #4304751190] Spot Monitoring IPC 10-06
 NBU 922-29B1AS [API #4304751191] Spot Monitoring IPC 10-06
 NBU 922-29B1DS [API #4304751192] Spot Monitoring IPC 10-06
 NBU 922-29B2BS [API #4304751193] Spot Monitoring IPC 10-06
 NBU 922-29D4DS [API #4304751198] Spot Monitoring IPC 10-05
 NBU 922-29E3BS [API #4304751199] Spot Monitoring IPC 10-05
 NBU 922-29F3AS [API #4304751200] Spot Monitoring IPC 10-05
 NBU 922-29F3BS [API #4304751201] Spot Monitoring IPC 10-05
 NBU 922-29G4AS [API #4304751202] Spot Monitoring IPC 10-06
 NBU 922-29H1CS [API #4304751203] Spot Monitoring IPC 10-06
 NBU 922-29H4CS [API #4304751204] Spot Monitoring IPC 10-06
 NBU 922-2911BS [API #4304751205] Spot Monitoring IPC 10-06
 NBU 922-29I1CS [API #4304751206] Spot Monitoring IPC 10-06
 NBU 922-29K2CS [API #4304751211] Spot Monitoring IPC 10-07
 NBU 922-29K4AS [API #4304751212] Spot Monitoring IPC 10-07
 NBU 922-29L1AS [API #4304751213] Spot Monitoring IPC 10-07
 NBU 922-29L2BS [API #4304751214] Spot Monitoring IPC 10-07
 NBU 922-29L2CS [API #4304751215] Spot Monitoring IPC 10-07
 NBU 922-29L3CS [API #4304751216] Spot Monitoring IPC 10-07
 NBU 922-29M2AS [API #4304751217] Spot Monitoring IPC 10-07
 NBU 922-29N2BS [API #4304751218] Spot Monitoring IPC 10-07
 NBU 922-29N3BS [API #4304751219] Spot Monitoring IPC 10-07
 NBU 922-30I4BS [API #4304751220] Spot Monitoring IPC 10-07 (SITLA surf/ Fed Min)
 NBU 922-30I4CS [API #4304751221] Spot Monitoring IPC 10-07 (SITLA surf/Fed Min)
 NBU 922-29J4CS [API #4304751222] Spot Monitoring IPC 10-08
 NBU 922-29N1BS [API #4304751223] Spot Monitoring IPC 10-08
 NBU 922-29O1CS [API #4304751224] Spot Monitoring IPC 10-08
```

That's quite a list, so I'm attaching a quick-and-dirty spreadsheet of the same data. This may be helpful to some of you.

Thanks.

-Jim

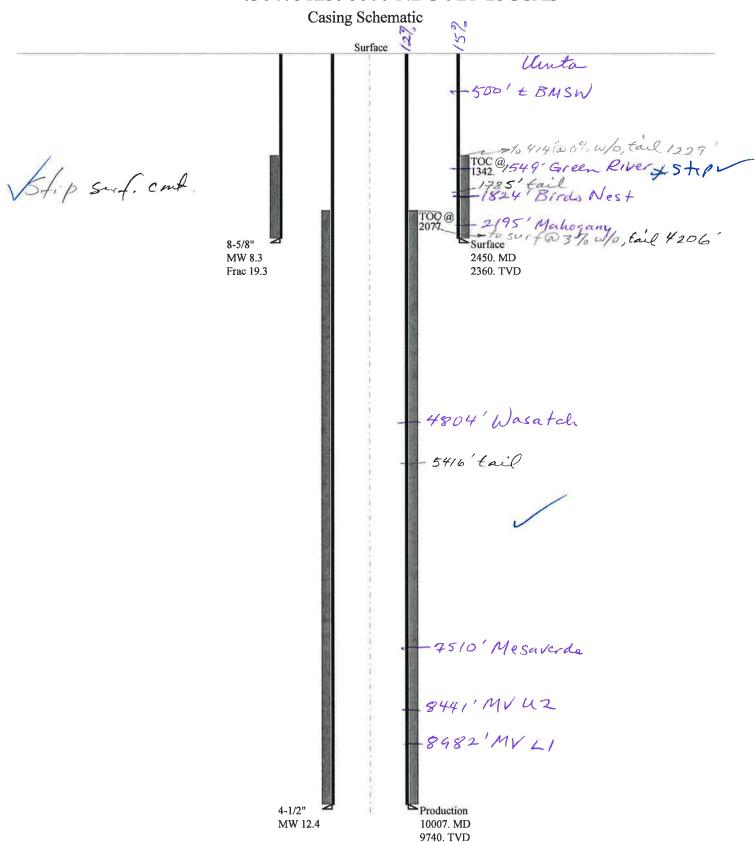
'APIWellNo:43047512390000'

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-25C1AS 43047512390000

Well Name		KERR-MCGEE OIL & GAS ONSHORE, L.P.			E, L.P. NBU 921	1-25C1	S 430475123		
String		Surf	T _P	Prod			<u> </u>		
Casing Size(")		8.625	4	1.500	ī		7	 -	
Setting Depth (TVD)		2450	9	9740			7		
Previous Shoe Setting Dept	th (TVD)	40	2	2450			7		
Max Mud Weight (ppg)		8.3	1	12.4	1		7 7		
BOPE Proposed (psi)		500	H	5000	1				
Casing Internal Yield (psi)		3390	H	7780	+	,			
Operators Max Anticipate		6136	H	12.1	+	<u>. </u>			
1	u /	10.00	L			<u></u>			
Calculations	Sui	rf String				8	3.625	,	
Max BHP (psi)		.052*Sett	ting	g Depth*N	1V	V= 1061			
								BOPE Adequate For Drilling And Setting C	Casing at Depth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12*	*Se	etting Dep	th	i)= <u>767</u>		NO air drill	
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22*	*Se	etting Dep	th	i)= <u>522</u>		NO OK	
					_	_		*Can Full Expected Pressure Be Held At Pi	revious Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting I	Depth - Previo	ous	Shoe Dep	oth	i)= ₅₃₁		NO Reasonable depth in area	
Required Casing/BOPE Te						2373		osi	
*Max Pressure Allowed @	Previous Casing Shoe=					40		osi *Assumes 1psi/ft frac gradient	
Calculations	Duc	od String			_		1.500	,	
Max BHP (psi)	110		tino	g Depth*N	10	_	1.500		
(psi)		.032 500	unig	g Deptil N	1 4	6280		BOPE Adequate For Drilling And Setting C	'asing at Denth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12*	*Se	etting Der	oth	i)= ₅₁₁₁		NO	asing at Deptil.
MASP (Gas/Mud) (psi)		ax BHP-(0.22*			_		_	YES OK	
(Gas/Muu) (psi)	1410	1X BIII (0.22		etting Dep	,,,,,	4137		*Can Full Expected Pressure Be Held At Pi	evious Shoe?
Pressure At Previous Shoe	Max BHP- 22*(Setting I	Denth - Previo	ous	Shoe Der	oth	1)= 4676	_	NO Reasonable	evious silve.
Required Casing/BOPE Te						5000		OSi	
*Max Pressure Allowed @			_			2450		osi *Assumes 1psi/ft frac gradient	
1710A T T ESSUITE TINOWEU W	Trevious cusing snoc				_	2450		2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Calculations	:	String						'	
Max BHP (psi)		.052*Sett	ting	g Depth*N	1V	V=			
								BOPE Adequate For Drilling And Setting C	Casing at Depth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12*	*Se	etting Dep	th	ı)=		NO	
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22°	*Se	etting Dep	th	1)=		NO	
								*Can Full Expected Pressure Be Held At Pi	evious Shoe?
Pressure At Previous Shoe		Depth - Previo	ous	Shoe Dep	oth	1)=		NO	
Required Casing/BOPE To	est Pressure=							osi	
*Max Pressure Allowed @	Previous Casing Shoe=							osi *Assumes 1psi/ft frac gradient	
Calculations		String	_		_			"	
Max BHP (psi)	,	.052*Setti	tino	n Denth*N	10	V=			
(psi)		.032 500	31112	5 Deptil 1	1 1	<u> </u>		BOPE Adequate For Drilling And Setting C	'asing at Denth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12 ³	*Se	etting Der	oth)=	_	NO	asing at Depth.
MASP (Gas/Mud) (psi)		ax BHP-(0.22*			_	- 1		NO I	
(Suovizua) (Por)	1410	(0.22		5 20	-11	<u> </u>		*Can Full Expected Pressure Be Held At Pi	revious Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting I	Depth - Previo	ous	Shoe Der	oth	1)=		NO	i
Required Casing/BOPE Te	` •			1	_			osi	
*Max Pressure Allowed @					_			osi *Assumes 1psi/ft frac gradient	
	0					11.			

43047512390000 NBU 921-25C1AS



Well name: 43047512390000 NBU 921-25C1AS

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type: Surface Project ID:

Location: UINTAH COUNTY

43-047-51239

Design parameters: Collapse Mud weight: Design is based on evacu	8.330 ppg ated pipe.	Minimum design for Collapse: Design factor	actors: 1.125	Environment: H2S considered? Surface temperature: Bottom hole temperature: Temperature gradient: Minimum section length:	No 74 °F : 107 °F 1.40 °F/100ft 100 ft
		Burst:		-	
		Design factor	1.00	Cement top:	1,342 ft
Burst		3		,	,
Max anticipated surface					
pressure:	2,156 psi				
Internal gradient:	0.120 psi/ft	Tension:		Directional Info - Build	& Drop
Calculated BHP	2,439 psi	8 Round STC:	1.80 (J)	Kick-off point	300 ft
Odlodiatod Di ti	2, 100 poi	8 Round LTC:	1.70 (J)	Departure at shoe:	566 ft
No backup mud specified		Buttress:	1.60 (J)	Maximum dogleg:	2 °/100ft
140 baokap maa specimea	•	Premium:	1.50 (J)	Inclination at shoe:	20 °
		Body yield:	1.50 (B)	Re subsequent strings:	
		Body yield.	1.50 (1)	Next setting depth:	9.740 ft
		Tonsion is based on a	sir woight	. .	
		Tension is based on a		Next mud weight:	12.400 ppg
		Neutral point:	2,141 ft	Next setting BHP:	6,274 psi
				Fracture mud wt:	19.250 ppg
				Fracture depth:	2,450 ft
				Injection pressure:	2,450 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)	
1	2450	8.625	28.00	I-55	LT&C	2360	2450	7.892	97020	
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor	
1	1021	1880	1.841	2439	3390	1.39	66.1	348	5.27 J	

Prepared Helen Sadik-Macdonald by: Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940 Date: October 5,2010 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2360 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047512390000 NBU 921-25C1AS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Production String type: Project ID: 43-047-51239

UINTAH COUNTY Location:

Environment: Design parameters: Minimum design factors:

Collapse H2S considered? Collapse: Νo Mud weight: 12.400 ppg Design factor 1.125 Surface temperature:

74 °F Internal fluid density: 2.330 ppg Bottom hole temperature: 210 °F Temperature gradient: 1.40 °F/100ft

> Minimum section length: 100 ft

Burst:

1.00 2,077 ft Design factor Cement top:

<u>Burst</u>

Max anticipated surface

pressure: 4,131 psi Internal gradient: 0.220 psi/ft Tension:

Calculated BHP 6,274 psi 8 Round STC: 8 Round LTC:

No backup mud specified. **Buttress:**

Premium: 1.50 (J) Body yield: 1.60 (B)

1.80 (J)

1.80 (J)

1.60 (J)

Tension is based on air weight. Neutral point: 8,202 ft Directional Info - Build & Drop Kick-off point 300 ft Departure at shoe: 1631 ft

Maximum dogleg: 2 °/100ft 0 ° Inclination at shoe:

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
1	10007	4.5	11.60	1-80	LT&C	9740	10007	3.875	132092
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
Seq		•			_	_		_	•
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
1	5095	6360	1.248	6274	7780	1.24	113	212	1.88 J

Prepared Helen Sadik-Macdonald Div of Oil.Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: October 5,2010 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9740 ft, a mud weight of 12.4 ppg. An internal gradient of .121 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name NBU 921-25C1AS

API Number 43047512390000 APD No 2924 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NWNW Sec 25 Tw 9.0S Rng 21.0E 800 FNL 893 FWL

GPS Coord (UTM) 627538 4429953 Surface Owner

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Roger Perry, Laura Gianokas, Lovel Young, Grizz Oleen, (Kerr McGee), Mitch.Batty, John Slaugh, (Timberline Engineering and Land Surveying), Ed Bonner (SITLA), Ben Williams (UDWR).

Regional/Local Setting & Topography

The general area is the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 34 air miles and 41.7 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The NBU 921-25D pad will be created by enlarging the existing pad of the NBU 921-25D gas well. Five gas wells, to be directionally drilled, will be added. They are the NBU 921-25E3AS, 921-25E1CS, 921-25D1CS, 921-25D1BS and 921-25C1AS. The existing pad will be extended in all directions except to the west. The site is on the north slope of a ridge with a drainage to the east which will be filled. Significant excavation will be needed to extend the pad leaving an excess of 4,800 cubic yards of spoils to be stockpiled. A draw to the west beyond Corner 10 will be avoided. No drainage diversions are required. The White River is approximately 3 miles down drainage. The selected site as adjusted appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the best site in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing
Wildlfe Habitat
Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 352 Length 425 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

10/6/2010 Page 1

Vegetation is a poor desert shrub type, which includes shadscale, curly mesquite, broom snakeweed and halogeton..

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are shallow sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site R	anking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 104' x 260' x 12' deep located in a cut on the southeast side of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Evaluator	Date / Time
Floyd Bartlett	8/26/2010

10/6/2010 Page 2

Application for Permit to Drill Statement of Basis

10/6/2010 Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
2924	43047512390000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONS	HORE, L.P.	Surface Owner-APD		
Well Name	NBU 921-25C1AS		Unit	NATURAL B	UTTES
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NWNW 25 9S 21E S 800	FNL 893 FV	VL GPS Coord (UTM)	627548E 44	29955N

Geologic Statement of Basis

Kerr McGee proposes to set 2,450' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 500'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 25. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill 9/28/2010 **APD Evaluator Date / Time**

Surface Statement of Basis

The general area is the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 34 air miles and 41.7 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

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Both the surface and minerals are owned by SITLA. Ed Bonner represented SITLA at the pre-site investigation. Mr. Bonner had no concerns pertaining to this location excepted as covered above. SITLA will provide site reclamation standards and a seed mix.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett
Onsite Evaluator

8/26/2010 **Date / Time** 'APIWellNo:43047512390000'

10/6/2010

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and

maintained in the reserve pit.

Surface The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/13/2010 **API NO. ASSIGNED:** 43047512390000

WELL NAME: NBU 921-25C1AS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWNW 25 090S 210E **Permit Tech Review:**

> **SURFACE:** 0800 FNL 0893 FWL **Engineering Review:**

> **BOTTOM:** 0190 FNL 2405 FWL Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01206 **LONGITUDE:** -109.50557 **UTM SURF EASTINGS: 627548.00** NORTHINGS: 4429955.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE LEASE NUMBER: UO 1189 ST

Drilling Unit

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: STATE/FEE - 22013542

Potash R649-3-2. General

Oil Shale 190-3 R649-3-3. Exception

Board Cause No: Cause 173-14 Water Permit: Permit #43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting **Fee Surface Agreement**

R649-3-11. Directional Drill ✓ Intent to Commingle

Commingling Approved

Oil Shale 190-5

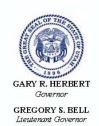
Oil Shale 190-13

Comments: Presite Completed

3 - Commingling - ddoucet 5 - Statement of Basis - bhill Stipulations:

15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald

API Well No: 43047512390000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 921-25C1AS API Well Number: 43047512390000 Lease Number: UO 1189 ST

Surface Owner: STATE **Approval Date:** 10/6/2010

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

API Well No: 43047512390000

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
- contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9					
	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST							
	RY NOTICES AND REPORTS ON	_	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	sals to drill new wells, significantly deepen exist ugged wells, or to drill horizontal laterals. Use A		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25C1AS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047512390000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE NO Street, Suite 600, Denver, CO, 80217 3779	UMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0800 FNL 0893 FWL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH					
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
12/20/2010		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
		FRACTURE TREAT	□ NEW CONSTRUCTION					
SUBSEQUENT REPORT Date of Work Completion:								
		PLUG AND ABANDON	☐ PLUG BACK					
SPUD REPORT		RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION					
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON					
	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
Nepole Pater	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: ACTS (Pit Refurb)					
12. DESCRIBE PROPOSED OR CO	 DMPLETED OPERATIONS. Clearly show all pertinen	it details including dates, depths, v	olumes, etc.					
Kerr-McGee Oil & Ga this multi-well pad fo	as Onshore, LP is requesting to re r completion operations. The refu	furb the existing pit on irb pit will be relined pe	r Approved by the					
	the COA of the APD. Upon comple Iso requesting to utilize this pit as							
	completion operations in the area.		d .					
	s placed on the location. The truck							
	the water is placed into the refurb		Samp of Land					
	ollect any hydro-carbons that ma							
with the other compl								
	on completion fluids will be							
lecyc	cled in this pit and utilized for othe	ci mac jobs ili tile sullo	anang seculis.					
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst						
SIGNATURE N/A		DATE 12/20/2010						



The Utah Division of Oil, Gas, and Mining

- State of UtahDepartment of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047512390000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

> **Approved by the Utah Division of** Oil, Gas and Mining

SUBMIT AS EMAIL Print Form

BLM - Vernal Field Office - Notification Form

Opei	rator KERR-MCGEE OIL & GA	NS Rig Name/# BUC	KETRIG				
-	nitted By ANDY LYTLE	_					
Well Name/Number NBU 921-25C1AS							
	Qtr <u>NWNW</u> Section 25		Range <u>21E</u>				
	e Serial Number <u>UO 1189 ST</u>		runge <u>zit</u>				
	Number <u>4304751239</u>	· · · · · · · · · · · · · · · · · · ·	**************************************				
∠ \1 1	Number 430475 1239						
	<u>d Notice</u> – Spud is the initial pelow a casing string.	spudding of the we	ell, not drilling				
	Date/Time <u>01/11/2011</u>	08:00 HRS AM	РМ				
<u>Casii</u> time	ng – Please report time casi s.	ing run starts, not c	ementing				
$\overline{\mathbf{V}}$	Surface Casing		RECEIVED				
	Intermediate Casing						
	Production Casing		JAN 1 0 2011				
	Liner		DIV. OF OIL, GAS & MINING				
	Other						
	Date/Time 01/22/2011	08:00 HRS AM	РМ				
BOP	E						
	= Initial BOPE test at surface	e casing point					
Ħ	BOPE test at intermediate	.					
	30 day BOPE test						
	Other						
	Date/Time	AM [PM				
Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT							
435 78	1 7048 OR LOVEL VOLING AT 435 828 098	36					

SUBMIT AS EMAIL

BLM - Vernal Field Office - Notification Form

Submitted By ANDY LYTLE Phone Number 720.929.6100								
Well Name/Number <u>NBU 921-25C1AS</u> Qtr/Qtr <u>NWNW</u> Section <u>25</u> Township <u>9S</u> Range <u>21E</u> Lease Serial Number <u>UO 1189 ST</u>								
API Number 4304751239 Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.								
G								
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other								
Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT								

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR	CES	FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST		
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepe ugged wells, or to drill horizontal laterals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25C1AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047512390000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PH treet, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 9 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0800 FNL 0893 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 2	IP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 21.0E Meridian	n: S	STATE: UTAH
11.	CK APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
1/13/2011	REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
DRILLING REPORT	│		☐ WATER DISPOSAL
Report Date:	WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU PETE MARTIN RAN 14" 36.7# SCH SPUD WELL	MPLETED OPERATIONS. Clearly show all pull BUCKET RIG. DRILLED 20" (EDULE 10 CONDUCTOR PIPE LOCATION ON JANUARY 13,	CONDUCTOR HOLE TO 40'. CMT W/28 SX READY MIX 2011 AT 10:30 HRS. OI FOI	·
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBE 720 929-6086	R TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 1/14/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N

Address:

P.O. Box 173779

city DENVER

state CO

zip 80217

Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751240	NBU 921-25D1BS		NWNW	25	98	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
В	99999	3900	1	/12/201	1	1/2	36/2011
Comments: MIRL SPUI	J PETE MARTIN BUCK D WELL LOCATION ON	ET RIG. WS7Y	IVS	BH		1 1/0 NW	<u> </u>

Weil 2

NBU 921-25C1AS					Rng	County
		NWNW	25	98	21E	UINTAH
Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
99999	2900	1.	/13/201	1	1/	26/2011
_	Number 99999	Number Number 99999 3910	Number Number 99999 39 60 1.	Number Number 99999 390 1/13/201	Number Number 99999 3910 1/13/2011	Number Number Eff

Well 3

Well Name		QQ	Sec	Twp	Rng	County
Current Entity Number	New Entity Number	Spud Date		l te	Entity Assignment Effective Date	
	Current Entity	Current Entity New Entity	Current Entity New Entity S	Current Entity New Entity Spud Date	Current Entity New Entity Spud Date	Current Entity New Entity Spud Date Entit

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- Other (Explain in 'comments' section)

RECEIVED

JAN 1 8 2011

GINA BECKER

Name (Please Print)

Signature

Title

REGULATORY ANALYST

1/14/2011

Date

(5/2000)

	FORM 9						
	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST						
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
Do not use this form for proposition—hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES						
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-25C1AS						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047512390000						
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0800 FNL 0893 FWL	COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 25	STATE: UTAH						
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA							
TYPE OF SUBMISSION	TYPE OF ACTION						
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME				
	CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION				
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK				
☐ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL				
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION				
1/26/2011	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PROPETRO AIR RIG #12 ON JANUARY 23, 2011. DRILLED 11" SURFACE HOLE TO 2510'. RAN 8 5/8" 28# IJ-55 SURFACE CSG. PUMP 1050 BBLS Accepted by the FRESH WATER. PUMP 20 BBLS GEL WATER. LEAD CEMENT W/ 210 SX CLASO tah Division of G PREM @ 11.0 PPG, 3.82 YD. TAILED CEMENT W/ 170 SX CLASS G PREMI, Gas and Mining LITE @ 15.8 PPG, 1.15 YD. DROP PLUG ON THE FLY, DISPLACED W/LORD (ONLY BBLS WATER. LIFT 550 PSI, BUMP PLUG & HOLD 850 PSI FOR 5 MIN. FLORE RECORD (ONLY HELD, 110 BBLS LEAD CEMENT TO SURFACE. CEMENT FELL BACK. TOP OUT W/ 100 SX CLASS G PREMITE @ 15.8 PPG, 1.15 YD. DOWN 1".2 BBLS TO PIT, CEMENT STAYED AT SURFACE. WORT.							
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBE 720 929-6100	R TITLE Regulatory Analyst					
SIGNATURE N/A		DATE 1/26/2011					

Sundry Number: 13700 API Well Number: 43047512390000

	STATE OF UTAH		FORM 9							
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST							
SUNDF	SUNDRY NOTICES AND REPORTS ON WELLS									
	sals to drill new wells, significantly deepen exis ugged wells, or to drill horizontal laterals. Use A		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES							
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25C1AS							
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047512390000							
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE N Street, Suite 600, Denver, CO, 80217 3779	720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES							
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0800 FNL 0893 FWL			COUNTY: UINTAH							
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 2!	IP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH							
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPORT,	OR OTHER DATA							
TYPE OF SUBMISSION		TYPE OF ACTION								
Kerr-McGee Oil & Ga	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION OMPLETED OPERATIONS. Clearly show all pertines as Onshore, LP is requesting to represent the completion operations. The refu	efurb the existing pit on	er							
the requirements in to pad, Kerr-McGee is a be utilized for other water into these tar purpose of the frac to associated with the county was plan to keep this	the COA of the APD. Upon completion requesting to utilize this pit a completion operations in the area has before the water is placed intended in the completion operations before the pit open for 1 year. During this to fluids will be recycled in this pit open for the pit open for the pit open for 1 year.	etion of the wells on this is an ACTS staging pit to a. The trucks will unload to the refurbed pit. The ons that may have be re releasing into the pit. ime the surrounding wit and utilized for other for Thank you.	Approved by the Utah Division of Oil, Gas and Mining O3/22/2011							
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst								
SIGNATURE N/A		DATE 3/22/2011								

Sundry Number: 13700 API Well Number: 43047512390000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047512390000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

Sundry Number: 16897 API Well Number: 43047512390000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE	rs.	FORM 9						
	ING	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST							
SUNDI	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:							
Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	sals to drill new wells, significantly deepen ugged wells, or to drill horizontal laterals. U	existing wells below current se APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES						
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25C1AS						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047512390000						
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHOI Street, Suite 600, Denver, CO, 80217 3779	NE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0800 FNL 0893 FWL			COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSH	IP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH						
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
	ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR						
☐ NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME						
Approximate date work will start:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
✓ SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION						
7/24/2011	☐ OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK						
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION						
Date of Spud:	REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON						
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL						
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION						
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: RIG REL ACTS PIT						
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2510' TO 10,020' ON JULY 22, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9691'. RAN 4 ½" 11.6# P110 CSG FROM 9691' TO 10,007'. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 146 ON JULY 24, 2011 @ 17:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS ate: SYSTEM. By:									
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst							
SIGNATURE N/A		DATE 7/25/2011							
L		1							

State of Utah - Notification Form

Submitted By KENT MOORE Phone Number 435- 828-0987 Well Name/Number NBU 921-25C1AS Qtr/Qtr NW/NW Section 25 Township 9S Range 21E Lease Serial Number 4304751239000 API Number 4304751239000	
<u>Casing</u> – Time casing run starts, not cementing times.	
Production Casing Other	
Date/Time <u>7/23/11</u> 15:00 AM PM \boxtimes	
BOPE Initial BOPE test at surface casing point Other RECEIVE JUL 2 6 20	
Date/Time AM M PM DIV. OF OIL, GAS & N	1INING
Rig Move Location To:	
Date/Time AM Description PM Description	
Remarks	

Sundry Number: 24958 API Well Number: 43047512390000

	STATE OF UTAH		FORM 9	
ι	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST	
SUNDR	RY NOTICES AND REPORTS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25C1AS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047512390000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0800 FNL 0893 FWL			COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	HIP, RANGE, MERIDIAN: 25 Township: 09.0S Range: 21.0E Mer	ridian: S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
	ACIDIZE	ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK	
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL	
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION	
4/13/2012				
	WILDCAT WELL DETERMINATION	OTHER	OTHER:	
THE SUBJECT WEL 1130 HRS. THE CHF	COMPLETED OPERATIONS. Clearly show L WAS PLACED ON PRODUC RONOLOGICAL WELL HISTOF TH THE WELL COMPLETION R	CTION ON 04/13/2012 AT RY WILL BE SUBMITTED	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 26, 2012	
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUME 435 781-7024	BER TITLE Regulatory Analyst		
SIGNATURE N/A		DATE 4/19/2012		

STATE OF UTAH AMENDED REPORT FORM 8 DEPARTMENT OF NATURAL RESOURCES (highlight changes) DIVISION OF OIL. GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: **UO 1189 ST** 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG 1a. TYPE OF WELL: 7. UNIT or CA AGREEMENT NAME GAS 7 OTHER UTU63047A b. TYPE OF WORK: 8. WELL NAME and NUMBER: HORIZ. DIFF. RESVR. NBU 921-25C1AS RE-ENTRY OTHER 2. NAME OF OPERATOR 9. API NUMBER: KERR MCGEE OIL & GAS ONSHORE, L.P. 4304751239 3. ADDRESS OF OPERATOR: PHONE NUMBER: 10 FIELD AND POOL, OR WILDCAT STATE CO ZIP 80217 P.O.BOX 173779 (720) 929-6000 **NATURAL BUTTES** CITY **DENVER** 4. LOCATION OF WELL (FOOTAGES) 11. QTR/QTR, SECTION, TOWNSHIP, RANGE, AT SURFACE: NWNW 800 FNL 893 FWL S25, T9S, R21E NWNW 25 9S 21E S AT TOP PRODUCING INTERVAL REPORTED BELOW: NENW 179 FNL 2405 FWL S25, T9S, R21E 13. STATE AT TOTAL DEPTH: NENW 197 FNL 2422 FWL S25,T9S,R21E BHLLEY 12 COUNTY UTAH UINTAH 14. DATE SPUDDED: 15. DATE T.D. REACHED: 16. DATE COMPLETED: 17. ELEVATIONS (DF, RKB, RT, GL): READY TO PRODUCE 🔽 ABANDONED 1/13/2011 7/22/2011 4/13/2012 4941 GL 18. TOTAL DEPTH: 19. PLUG BACK T.D.: MD 9.961 MD 21. DEPTH BRIDGE MD 10.020 20. IF MULTIPLE COMPLETIONS, HOW MANY? PLUG SET: TVD 9,760 TVD 9.701 TVD 22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) NO 🗸 YES WAS WELL CORED? (Submit analysis) HDIL/ZDL/CNGR-CBL/GR/COLLARS/TEMP WAS DST RUN? ио 🚺 YES -(Submit report) DIRECTIONAL SURVEY? NO YES X (Submit copy) 24. CASING AND LINER RECORD (Report all strings set in well) CEMENT TYPE & NO. OF SACKS STAGE CEMENTER SLURRY HOLE SIZE SIZE/GRADE WEIGHT (#/ft.) TOP (MD) BOTTOM (MD) CEMENT TOP ** AMOUNT PULLED DEPTH VOLUME (BBL) 20' 14" STL 36.7# 0 40 28 28# 0 11" 8 5/8" **IJ-55** 2,490 580 0 7 7/8" 4 1/2 11.6# 0 1-80 9,691 120 1,800 7 7/8" 4 1/2" P-110 11.6# 9,691 10.007 25. TUBING RECORD SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) 2 3/8" 9.010 27. PERFORATION RECORD 26. PRODUCING INTERVALS FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) NO. HOLES PERFORATION STATUS SIZE 7,828 (A) MESAVERDE 9,519 7.828 9.519 0.36 141 Squeezed Open (B) Open Squeezed (C) Open Squeezed

GEOLOGIC REPORT

CORE ANALYSIS

DST REPORT

OTHER:

Open

✓ DIRECTIONAL SURVEY

Squeezed

PROD

(D)

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

| | ELECTRICAL/MECHANICAL LOGS

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTER	D:	TEST PRODUCTION	OIL - BBL:	GAS MCF:	WATER - BBL:	PROD. METHOD:
4/13/2012	/13/2012 4/14/2012			24	RATES: →	0	1,235	432		
CHOKE SIZE: 20/64	TBG. PRESS. 450	CSG. PRESS.	API GRAVITY	BTU GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF: 1,235	WATER - BBL: 432	INTERVAL STATUS
				INT	ERVAL B (As sho	wn In item #26)			•	
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	BTU – GAS GAS/OIL RATIO		OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS
				INT	ERVAL C (As show	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTE	D;	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG, PRESS.	API GRAVITY	BTU GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS
				INT	ERVAL D (As show	wn in item #26)				
DATE FIRST PR	TE FIRST PRODUCED: TEST DATE: HOURS TESTED:		D:	TEST PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER BBL:	PROD. METHOD:		
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS

33. SUMMARY OF POROUS ZONES (Include Aquifers):

34. FORMATION (Log) MARKERS:

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1,587 1,893 2,290 5,051 7,802

35. ADDITIONAL REMARKS (include plugging procedure)

Attached is the chronological well history, perforation report & final survey.

36.	I hereby certify that	the foregoing and attached	l information is comple	te and correct as dete	ermined from all ava	illable records
-----	-----------------------	----------------------------	-------------------------	------------------------	----------------------	-----------------

NAME (PLEASE PRINT) CARA MAHLER
SIGNATURE

TITLE REGULATORY ANALYST

DATE

5 31 2012

This report must be submitted within 30 days of

- completing or plugging a new well
- · drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- · reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- * ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- ** ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

Operation Summary Report

Well: NBU 921-25C1AS RED Spud Conductor: 1/13/2011 Spud Date: 1/23/2011 Project: UTAH-UINTAH Site: NBU 921-25D PAD Rig Name No: ENSIGN 146/146, PROPETRO/ Event: DRILLING End Date: 7/24/2011 Start Date: 12/7/2010

Active Datum: RKB @4.955.01ft (above Mean Sea

UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0

tive Datum: F vel)	(10 W-1,5)	oo.o m (abo	ve ivican oca		UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0						
Date	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation		
1/23/2011		- 19:00	12.00	MIRU	01	A	P		DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOME LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP.		
		- 19:30	0.50	PRPSPD	01	В	Р		P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8017 . 7/8 LOBE .19 RPM. M/U Q506 SN 7021693 1ST RUN, W/ 7-18'S. INSTALL RUBBER		
		- 20:00	0.50	MAINT	80	В	Р		WORK ON MUD PUMPS		
		- 21:30 - 0:00	1.50 2.50	DRLSUR	02 06	A	P P		SPUD SURFACE 1/23/2011 20:00 HRS. DRILL 11" SURFACE HOLE F/40'-210' (170' @ 113'/HR) PSI ON/ OFF 700/430, UP/ DOWN/ ROT 27/22/25. 500 GPM, 45 RPM ON TOP DRIVE, 15-18K TOOH, PU AND ORIENT DIR TOOLS, ITH T/ 210'		
1/24/2011	0:00	- 1:30	1.50	DRLSUR	06	A	P		TIH W/ DIR TOOLS		
	1:30 - 8:30 7.00 DRLSUR 02 C P 8:30 - 12:00 3.50 MAINT 08 A X 12:00 - 0:00 12.00 DRLSUR 02 C P	С	P		DRILL/ SLIDE 11" SURFACE HOLE F/ 210'-740' (530' @ 75'/HR) PSI ON/ OFF 1010/880, UP/ DOWN/ ROT 66/52/58. 134 SPM, 550 GPM, 18-20K WOB, 50 RPM ON TOP DRIVE, CIRCULATING RESERVE PIT						
			WORK ON BRAKES ON TOP DRIVE DRILL/ SLIDE 11" SURFACE HOLE F/740'-1640 (900' @ 75'/HR) PSI ON/ OFF 1220/980, UP/ DOWN/ ROT 72/52/60. 134 SPM, 550 GPM, 18-20K WOB, 50 RPM ON TOP DRIVE, CIRCULATING RESERVE PIT								
1/25/2011	0:00	- 13:30	13.50	DRLSUR	02	С	P		DRILL/ SLIDE 11" SURFACE HOLE F/ 1640'-2510' (870' @ 65'/HR) PSI ON/ OFF 1590/1300, UP/ DOWN/ ROT 82/65/72. 134 SPM, 550 GPM, 18-20K WOB, 50 RPM ON TOP DRIVE, CIRCULATING RESERVE		
	13:30	- 14:30	1.00	DRLSUR	05	F	Р		CIRC AND COND HOLE CLEAN		
		- 19:15	4.75	DRLSUR	06	Α	P		TOOH, LDDS AND DIR BHA		
	19:15	- 20:00	0.75	CSG	12	Α	Р		RIG UP TO RUN 8.625" SURFACE CSG		
	20:00	- 23:30	3,50	CSG	12	Ċ	P		RUN 56 JTS OF 8-5/8", 28#, J-55, 8 RND SURFACE CSG W/ LTC THREADS. LANDED FLOAT SHOE @ 2480.38' KB. RAN BAFFLE PLATE IN TOP OF SHOE JT LANDED 2434.32' KB. FILL CSG @ 500', 1500', AND 2480'.		
	23:30	- 0.00	0.50	BDMC	01	_	ь		RUN 100' OF ONE INCH DOWN BACK SIDE		
	23.30	- 0:00	0.50	RDMO	01	E	P		RIG DOWN RIG, MOVE OFF WELL		

Operation Summary Report

Well: NBU 921-25C1AS RED	Spud Conductor: 1/13/2011	Spud Date: 1/23/2011		
Project: UTAH-UINTAH	Site: NBU 921-25D PAD	Rig Name No: ENSIGN 146/146, PROPETRO/		
Event: DRILLING	Start Date: 12/7/2010	End Date: 7/24/2011		
Active Datum: RKR @4 955 01ft (above Mean Sea	UWI: NW/NW/0/9/S/21	I/F/25/0/0/26/PM/N/800/M/0/893/0/0		

Event: DRILLING		Start Date	: 12/7/20	110	<u> </u>	End Date: 7/24/2011		
Active Datum: RKB @4,955.01ft (above Mean Sea Level)						N/NW /0/9/	S/21/E/	25/0/0/26/PM/N/800/W/0/893/0/0
Date	Market Payer	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (fit)
1/26/2011	0:00	- 4:00	4.00	CSG	12	Ē	P	HOLD SAFETY MEETING. INSTALL CEMENT HEAD. PSI TEST TO 2000 PSI. PUMP 150 BBLS OF 8.3# H20 AHEAD. FULL CIRC. PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. FULL CIRC. PUMP 210 SX(143 BBLS) 11# 3.82 YIELD LEAD CEMENT, PUMP 170 SX 35 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). FULL CIRC. DROP PLUG ON FLY AND DISPLACE W/145 BBLS OF 8.3# H20. LIFT PRESSURE WAS 550 PSI, BUMP PLUG AND HOLD 850 PSI FOR 5 MIN. FLOAT HELD 110 BBLS LEAD CEMENT TO SURF, CEMENT FELL BACK, TOP OUT, PUMP 100 SX (20.5 BBLS) OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE) DOWN 1". 2 BBLS TO PIT, CMT FELL. WAITED TWO HRS, PUMPED 100 SX DOWN BACK SIDE, CMT STAYED AT SURFACE, RIG DOWN CEMENTERS AND RELEASE RIG @ 04:00
7/14/2011	0:00	- 2:00	2.00	DRLPRO	01	С	Р	SKID RIG OVER WELL
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2:00	- 4:00	2.00	DRLPRO	09	A	Р	CUT & SLIP 75 FT. OF DRILLINE
	4:00	- 5:00	1.00	DRLPRO	14	A	P	N/U BOP
	5:00	- 10:00	5,00	DRLPRO	15	A	P	TEST BOP RAMS, CHOKE, HCR, KILLINE TO 250 LOW, 5000 HIGH, ANNULAR TO 250 LOW 2500 HIGH, CASING 1500 PSI FOR 30 MIN
	10:00	- 10:30	0.50	DRLPRO	06	J	P	INSTALL WEAR BUSHING
		- 11:00	0,50	DRLPRO	07	A	Р	RIG SERVICE - X/O SAVOR SUB
		- 14:00	3.00	DRLPRO	06	Α	P	P/U NEW MOTOR & BIT, BEND MOTOR TO 1.83 DEG, SCRIBE, R.I.H TAG CMT. @ 2312 FT.
		- 14:30	0.50	DRLPRO	07	В	Р	LEVEL DERRICK, INSTALL ROTATING HEAD RUBBER
	14:30	- 17:00	2.50	DRLPRO	02	F	P	DRILL CMT, FLOAT PROJECTED @ 2444 - ACTUAL @ 2355 FT, SHOE PROJECTED @2490 ACTUAL @ 2375 FT. & FORMATION - TROUBLE SHOOT DEPTH DIFFERANCE OF 115 FT.
	17:00	- 19:00	2.00	DRLPRO	06	Α	Р	T.O.H TO COUNT STANDS - STAND COUNT WAS CORRECT - T.I.H
	19:00	- 23:00	4.00	DRLPRO	02	Ď	P	DRILL & SLIDE F/ 2520 TO 2947 - 427 FT. 107 FT. PER/HR DRILLING W/ WATER, WOB 20, RPM 45, MMRPM 103, GPM 514, TQ. 5/8, SPM 105, PSI ON/OFF BTM. 1500/1150 - ROT. 58 % SLIDE 42%
		~ 0:00	1.00	DRLPRO	08	Α	Z	GAS BUSTER IS PLUGGED UP - T.O.H 6 STDS & CLEAN OUT DRILL SOLIDS
7/15/2011	0:00	- 3:30	3.50	DRLPRO	08	Α	Z	CONTINUE CLEANING OUT GAS BUSTER OF BARITE & DRILL SOLIDS - T.I.H
	3:30 11:00	- 11:00 - 11:30	7.50 0.50	DRLPRO	02 07	D A	P	DRILL & SLIDE F/ 2947 TO 3672 - 725 FT. 97 FT. PER/HR. DRILLING W/ WATER, WOB 20, RPM 45, MMRPM 103, GPM 514, TQ. 8/11, SPM 105, PSI ON/OFF BTM. 1600/1150 - P/U 150K, S/O 100K, ROT. 123K - ROT. RIG SERVICE
	11:30	- 0:00	12.50	DRLPRO	02	D	Р	DRILL & SLIDE F/ 3672 TO 4636 - 964 FT. 77 FT. PER/HR, DRILLING W/ WATER, WOB 20, RPM 45, MMRPM 103, GPM 514, TQ. 8/11, SPM 105, PSI ON/OFF BTM. 1750/1400 - P/U 170K, S/O 125K, ROT. 135K - ROT. 36% SLIDE 67%

Operation Summary Report

 Well: NBU 921-25C1AS RED
 Spud Conductor: 1/13/2011
 Spud Date: 1/23/2011

 Project: UTAH-UINTAH
 Site: NBU 921-25D PAD
 Rig Name No: ENSIGN 146/146, PROPETRO/

 Event: DRILLING
 Start Date: 12/7/2010
 End Date: 7/24/2011

Event: DRILLIN	G	•		Start Date	: 12/7/20	10		End Date: 7/24/2011			
Active Datum: R	RKB @4,9	55,01ft (abo	ve Mean Sea		UWI: NV	N/NW/ 0/9	/S/21/E/2	5/0/0/26/PM/N/800/W/0/893/0/0	00/W/0/893/0/0		
Level)	ercuest.	Education and the	TRANSCORPANIE	The Section College (College)	1 4 1	region of			9.11.152 E.1 17 years		
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ff)			
7/16/2011	0:00	- 11:30	11.50	DRLPRO	02	D	P	DRILL & SLIDE F/ 4636 TO 5667' (1031' @ 90f; MW 8.4, VIS 27, WOB 20, RPM 45, MM RPM 10 8/11, SPM 105, GPM 515, PSI OFF/ON 1425/17 170, SO 135, ROT 146, SLIDE 4669 4719, 4760 4782, 4851 4877, 4941 4965, 5032 5058, 5123 5143, 5213 5228, 5304 5316, 5395 5407 (SLIDE 209'/4.67 hrs 40% - ROT 822'/6.83 hrs 60%)	93, TQ 50, PU		
		- 12:00	0.50	DRLPRO	07	Α	P	RIG SER			
	12:00	- 0:00	12.00	DRLPRO	02	D	Р	DRILL/SLIDE F/5667' TO 6730' (1063' @ 89fph) 9.1, VIS 37, LCM 7%, WOB 20, RPM 45, MM RI 103, TQ 8/10, SPM 105, GPM 515, PSI OFF/ON 1650/1975, PU 230, SO 147, ROT 175, SLIDE 5 5681, 5758 5772, 5848 5864, 5939 5951, 6029 6044, 6211 6223 (SLIDE 83'/1.66 hrs 13% - RO' 980'/10.34 hrs 87%)	РМ 667		
7/17/2011	0:00	- 11:30 - 12:00	11.50 0.50	DRLPRO	02 07	D A	P P	DRILL/SLIDE F/6730' TO 7298' (568' @ 50fph) i 9.4, VIS 38, LCM 10%, WOB 20, RPM 45, MM F 103, TQ 7/9, SPM 105, GPM 515, PSI OFF/ON 1670/2000, PU 265, SO 145, ROT 175 7177 713 7208 7212 (SLIDE 20'/1.25 hrs 10% - ROT 548'/10.25 hrs 90%) RIG SER	RPM		
	12:00	- 0:00	12.00	DRLPRO	02	D	Р	DRILL/SLIDE F/7298' TO 7595' (297' @ 25fph) I	MA/		
								10.4, VIS 37, LCM 15%, WOB 22, RPM 45, MM 103, TQ 9/11, SPM 105, GPM 515, PSI 2250/19 250, SO 145, ROT 175, SLIDE 7510 7528, 7570 (SLIDE 32'/4 hrs 33% - 265'/8 hrs 67%) (ATTEMPTED TO SLIDE ON CONNECTIONS (& 7389' MOTOR STALLING - ABLE TO MAKE (SLIDE @ 7510' TO 7528' & 7570' TO 7584') (OBSERVED ON CONNECTION @ 7480' PRO	RPM 00, PU 7584 2 7298' GOOD		
		ť						WITH IRON DERRICKHAND - VISUAL INSPEC FOUND MAIN ARM PIVOT PIN ON IDM BROKI UNABLE TO USE IDM) (CONTINUE TO DRILL SINGLES - WILL REPLACE PIN THIS AM)	EN -		
7/18/2011	0:00	- 9:00	9.00	DRLPRO	02	D	P	DRILL/SLIDE F/7595' TO 7877' (282' @ 32fph) i 10.4, VIS 38, LCM 15%, WOB 23, RPM 45, MM 103, TQ 9/11, SPM 105, GPM 515, PSI OFF/ON 1900/2250, PU 250, SO 145, ROT 175 (ROT 10	RPM		
	9:00	- 16;30	7.50	DRLPRO	08	Α	Z	POOH TO 7706' - REMIOVE IDM FROM DERR WITH J&C CRANE - REPLACE PIPE HANDLES BUSHINGS & PINS - INSTALL IDM BACK IN DI - RIH F/7706' TO 7877 - NO PROBLEMS	ICK R		
	16:30	- 0:00	7.50	DRLPRO	02	D	P	DRILL/SLIDE F/7877' TO 8030' (153' @ 21fph) I 10.5, VIS 39, LCM 15%, WOB 24, RPM 45, MM 103, TQ 9/11, SPM 105, GPM 515, PSI OFF/ON 2125/2350, PU 227, SO 180, ROT 187, SLIDE 7 7897, 7960 7970 (SLIDE 20'/3 hrs 40% - ROT 133'/4.5hrs 60%)	RPM		
7/19/2011	0:00	- 10:30	10.50	DRLPRO	02	D	P	DRILL/SLIDE F/8030' TO 8344' (314' @ 29fph) 1 10.8, VIS 39, LCM 15%, WOB 24, RPM 45, MM 103, TQ 9/11, SPM 105, GPM 515, PSI OFF/ON 1940/2025 (ROT 100%)	RPM		
	10:30	- 16:00	5.50	DRLPRO	06	Α	P	POOH, BACKREAM F/8344' TO 7894' - CONTIL POOH TO 1493' (NO PROBLEMS)	NUE		

Operation Summary Report

 Well: NBU 921-25C1AS RED
 Spud Conductor: 1/13/2011
 Spud Date: 1/23/2011

 Project: UTAH-UINTAH
 Site: NBU 921-25D PAD
 Rig Name No: ENSIGN 146/146, PROPETRO/

 Event: DRILLING
 Start Date: 12/7/2010
 End Date: 7/24/2011

Active Datum: RKB @4,955.01ft (above Mean Sea

UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0

Active Datum: F Level)	KB @4,95	55.01ft (abov	ve Mean Sea		UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0						
Date		lime .	Duration	Phase	Code	Sub	P/U	MD From	Operation		
		art-End	(hr)			Code		(ft)			
		- 21:30 - 23:30	5.50 2.00	DRLPRO	08 06	A A	Z P		NO COMMUNICATIONS WITH IRON DERRICKHAND - CALL OUT SERVICE TECH FROM VERNAL - TROUBLESHOOT & REPAIR ETHERNET CABLE - RESTORE COMMUNICATIONS CONTINUE POOH F/1493' - L/DN MM & BIT		
	23:30	- 0:00	0.50	DRLPRO	06	Α	Р		P/UP WEATHERFORD MUD MOTOR .16 RPG 1.80 deg & HUGHES BIT Q506F - SCRIBE & ORIENT DIRECTIONAL TOOLS		
7/20/2011	0:00	- 1:30	1.50	DRLPRO	06	Α	₽		RIH TO 1721'		
	1:30	- 4:00	2.50	DRLPRO	80	В	Z		REPAIR DRAWWORKS - PLC COMMUNICATION FAILURE - REPLACE DELTA MODULE		
	4:00	~ 10:30	6.50	DRLPRO	06	Α	Р		CONTINUE RIH F/1721' TO 8298' - WASH F/8298' TO 8344' (WASH TIGHT SPOTS @ 3060', 3422', 5017' & 5629')		
	10:30	- 0:00	13.50	DRLPRO	02	D	Р		DRILL/SLIDE F/8344' TO 8932' (588' @ 43fph) MW 11.9, VIS 40, LCM 35%, WOB 20, RPM 35, MM RPM 73, TQ 8/10, SPM 94, GPM 460, PSI OFF/ON 2125/2445, PU 255, SO 180, ROT 190, SLIDE 8842 8857 (SLIDE 15'/1 hrs 7% - 573'/12.5 hrs 93%) (LOST 250 BBLS MUD @ 8660')		
7/21/2011	0:00	- 11:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE F/8932' TO 9387' (455' @ 42fph) MW 12.0, VIS 40, LCM 32%, WOB 20, RPM 35, MM RPM 75, TQ 8/10, SPM 96, GPM 470, PSI OFF/ON 2125/2450, PU 257, SO 186, ROT 197, SLIDE 24/1.16 hrs 10% - ROT 431'/9.84 hrs 90%)		
		- 11:30	0.50	DRLPRO	07	Α	Р		RIG SER		
	11:30	- 0:00	12.50	DRLPRO	02	D	P		DRILL/SLIDE F/9387' TO 9840' (453' @ 37fph) MW 12.2, VIS 45, LCM 30%, WOB 20, RPM 35, MM RPM 75, TQ 8/11, SPM 96, GPM 470, PSI OFF/ON 2135/2430, PU 247, SO 188, ROT 205, SLIDE 9387 9406, 9477 9490 (23'/3 hrs 24% - ROT 430'/9.5 hrs. 76%)		
7/22/2011	0:00	- 5:00	5.00	DRLPRO	02	D	Р		DRILL/SLIDE F/9840' TO 10,020' (180' @ 36fph) MW 12.4, VIS 45, LCM 30%, WOB 20, RPM 35, MM RPM 75, TQ 8/11, SPM 96, GPM 470, PSI OFF/ON 2135/2430, PU 247, SO 188, ROT 205 (ROT 100%)		
	5:00	- 6:30	1.50	DRLPRO	05	С	Р		CIRC		
	6:30	- 15:30	9.00	DRLPRO	06	E	Р		W/TRIP TO 8 5/8" CASING SHOE @ 2490' - BACKREAM 31 STANDS F/10,020' TO 7230' - PUMP SLUG & CONTINUE PULL OUT OF HOLE (WASH TIGHT SPOT @ 6150') CONTINUE POOH TO CASING SHOE - NO PROBLEMS		
	15:30	~ 22:30	7.00	DRLPRO	06	E	P		RIH F/2490' TO 9930' - WASH F/9930' TO 10,020' (WASH TIGHT HOLE @ 8550' & 9250') (LOST 65 BBLS MUD ON TRIP)		
	22:30	- 0:00	1.50	DRLPRO	05	Α	Р		CIRC PRIOR TO TRIP OUT FOR OPEN HOLE LOGS		
7/23/2011	0:00	- 0:30	0.50	DRLPRO	05	С	P		CIRC PRIOR TO POOH F/OPEN HOLE LOGS		
	0:30	- 16:00	15.50	DRLPRO	06	В	Р		POOH LDDP - BACKREAM OUT 25 STDS F/10,020' TO 7681'- CONTINUE POOH LDDP TO 1045' - RIH 30 STANDS FROM DERRICK TO 3745' - CONTINUE POOH LDDP & BHA		
	16:00	- 16:30	0.50	DRLPRO	14	В	P		RETRIEVE WEARBUSHING		
	16:30	- 23:00	6.50	DRLPRO	11	D	Р		HPJSM, R/UP BAKER ATLAS & RUN TRIPLE COMBO TO LOGGERS TD @10,019'		

Operation Summary Report

Spud Conductor: 1/13/2011 Well: NBU 921-25C1AS RED Spud Date: 1/23/2011 Project: UTAH-UINTAH Site: NBU 921-25D PAD Rig Name No: ENSIGN 146/146, PROPETRO/ Event: DRILLING Start Date: 12/7/2010 End Date: 7/24/2011

Active Datum: RKB @4,955.01ft (above Mean Sea

UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0

Date		Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
		art-End	(hr)		10 19 19	Code		(ft)	
±		- 0:00	1.00	DRLPRO	12	С	P		HPJSM R/UP FRANKS & RUN 231 JTS 4.5"11.60 I-80 BTC, 7 JTS 11.60 P-110 PROD CASING FLOAT SHOE 10,007', FLOAT COLLAR 9959', MESAVERDE MKR 7730', WASATCH MKR 5010'
7/24/2011	0:00	- 10:00	10.00	CSG	12	С	P		RUN 231 JTS 4.5"11.60 I-80 BTC, 7 JTS 11.60 P-110 PROD CASING FS 10,007, FC 9959, MESAVERDE MKR 7730', WASATCH MKR 5010
		- 11:00	1.00	CSG	05	Α	Р		CIRC CASING
		- 13:30	2.50	CSG	12.	E	Р.		HPJSM, R/UP BJ & CEMENT 4.5" PROD CASING, TEST LINES 5000 PSI, PUMP 5 BBLS FRESH WATER, 10 BBLS 20 SKS SCAVENGER 11.4 PPG 2.8 YIELD, 600 SKS LEAD 12.4 PPG 2.03 YIELD, TAIL 1200 SKS 14.3 PPG, 1.31 YIELD, DROPPED PLUG & DISPLACED W/154.9 BBLS FRESH WATER W/0.1 gal/bbl CLAYFIX II & 0.01 gal/bbl ALDACIDE G @ 2700 PSI, BUMPED PLUG @ 3300 PSI - FLOATS HELD W/2.0 BBLS RETURN, GOOD TO PARTIAL RETURNS DURING CMT JOB W/20 BBLS CEMENT TO SURFACE - R/DN BJ
	13:30	- 14:00	0.50	CSG	12	С	P		SET C-22 SLIPS W/110K STRING WEIGHT WITH WEATHERFORD REP PATRICK DIMS ON LOCATION
	14:00	- 17:00	3.00	CSG	14	Α	Р		N/DN BOPE, ROUGH CUT 4.5" PROD CASING, LAY OUT CUT JOINT - CLEAN RIG TANKS - RELEASE RIG @ 17:00 hrs

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-25C1AS RED	Wellbore No.	ОН
Well Name	NBU 921-25C1AS	Wellbore Name	NBU 921-25C1AS
Report No.	1	Report Date	3/22/2012
Project	UTAH-UINTAH	Site	NBU 921-25D PAD
Rig Name/No.		Event	COMPLETION
Start Date	3/15/2012	End Date	4/13/2012
Spud Date	1/23/2011	Active Datum	RKB @4,955.01ft (above Mean Sea Level)
UWI	NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/89	93/0/0	

1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

1.5 Summary

Fluid Type	KCL WATER	Fluid Density	Gross Interval	7,828.0 (ft)-9,519.0 (ft)	Start Date/Time	4/2/2012 12:00AM
Surface Press		Estimate Res Press	No. of intervals	39	End Date/Time	4/2/2012 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	141	Net Perforation Interval	44.00 (ft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.20 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ CCL@ Reservoir (ft)	CCL-T MD Top M S (ft)	(ft) [Shot Misfires/ Density Add. Shot shot/ft)	Diamete Carr Type /Ca f (in)	rr Manuf Carr Phasing Size (°)	Charge Desc/Charge Charge Reason Misr Manufacturer Weight (gram)
4/2/2012	MESAVERDE/	7,828.0	7,829.0	3.00	0.360 EXP/	3.375 120.00	23.00 PRODUCTIO
12:00AM		:					N

May 25, 2012 at 1:50 pm 1 OpenWells

2.1 Perforated Interval (Continued)

Date	Formation/	CCL@	CCL-T	Name of the State	MD Base	Shot	Misfires/	Diamete	Carr Type /Carr Manuf	Carr	Phasing	Charge Desc/Charge	Charge	Reason	Misrun
	Reservoir	(ft)	S (ft)	(ft)	(ft)	Density (shot/ft)	Add. Shot	t (in)		Size (in)	ෆ	Manufacturer	Weight (gram)		
4/2/2012	MESAVERDE/	37 (87 16) 1 40 (19 (3)	Llata X**Z.latara	7,864.0	7,865.0	3.00	- 18 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.360	EXP/	3.375	120.00			PRODUCTIO	
12:00AM	· · \$4 · \$4 · \$4 · \$4 · \$4 · \$4 · \$4 · \$													N	
4/2/2012	MESAVERDE/			7,960.0	7,961.0	3.00		0.360	EXP/	3,375	120.00			PRODUCTIO	
12:00AM 4/2/2012	MESAVERDE/			7.990.0	7.991.0	3.00		0.360	EVD/	3.375	120.00		,	N PRODUCTIO	·;
12:00AM	WIESAVERDE/			7,990.0	1,001.0	3.00		0.500	LAF	3.373	120.00			N	
4/2/2012	MESAVERDE/			8,016.0	8,017.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM														N	
4/2/2012	MESAVERDE/			8,033.0	8,034.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO	
12:00AM 4/2/2012	MESAVERDE/			8,066.0	8,067.0	3.00		0.360	EVD	3.375	120.00			N PRODUCTIO	
12:00AM	WESAVERDE			0,000.0	0,007.0	3.00		0.300	LAF/	3.373	120.00			N	:
4/2/2012	MESAVERDE/			8,190.0	8,191.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM											د کنید د در دو			Ņ	
4/2/2012	MESAVERDE/			8,206.0	8,207.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO	
12:00AM 4/2/2012	MESAVERDE/			0.040.0	8,219.0	3.00		0.360	EVD	3.375	120.00			N PRODUCTIO	
12:00AM	WESAVERDE/			8,218.0	0,219.0	3.00		0.360	EAT/	3.375	120.00		23.00	N	:
4/2/2012	MESAVERDE/			8,271.0	8,272.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO	
12:00AM														N	
4/2/2012	MESAVERDE/			8,306.0	8,307.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM 4/2/2012	MESAVERDE/			0.247.0	0.240.0	3.00		0.360	EVD	2 275	120.00		22.00	N PRODUCTIO	
12:00AM	WESAVERDE			8,317.0	8,318.0	3.00		0.300	EAP/	3.375	120.00			N	
4/2/2012	MESAVERDE/			8,383.0	8,384.0	3.00		0.360	EXP/	3.375	120.00		je v sa kara se sa kara k	PRODUCTIO	
12:00AM														N	
	MESAVERDE/			8,402.0	8,403.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM 4/2/2012	MEON/EDDE/				0.400.0	0.00		0.000	EVD	2 275	420.00		22.00	PRODUCTIO	
12:00AM	MESAVERDE/			8,431.0	8,432.0	3.00		0.360	EXP/	3.375	120.00			N	:
4/2/2012	MESAVERDE/			8,449.0	8,450.0	3.00		0.360	EXP/	3.375	120.00		to the second of the	PRODUCTIO	
12:00AM														N	
4/2/2012	MESAVERDE/			8,476.0	8,477.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO	
12:00AM	MEON (EDDE)							0.000	PVB/	0.075	400.00			N	
4/2/2012 12:00AM	MESAVERDE/			8,498.0	8,499.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
4/2/2012	MESAVERDE/			8,598.0	8,600.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO	
12:00AM				.,	-,									N	
	MESAVERDE/			8,650.0	8,652.0	3.00		0.360	EXP/	3,375	120.00			PRODUCTIO	
12:00AM		_:				::::		ديايسود يس						N	·
4/2/2012 12:00AM	MESAVERDE/			8,771.0	8,772.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
12.00/(17)	A				and the second second		to the second of the second							IN	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ D Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
4/2/2012 12:00AM	MESAVERDE/			8,794.0	8,795.0			0.360	EXP/	3.375	90.00	en Santa (Santa Andrea (Santa Anglaire an Aire		PRODUCTIO N	1
4/2/2012 12:00AM	MESAVERDE/			8,840.0	8,841.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			8,865.0	8,866.0	4.00	:	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			8,908.0	8,910.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	:
4/2/2012 12:00AM	MESAVERDE/		:	9,030.0	9,031.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,048.0	9,049.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/	:		9,078.0	9,080.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,104.0	9,105.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,126.0	9,127.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,216.0	9,218.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,281.0	9,282.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,297.0	9,298.0	3,00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,319.0	9,320.0	4.00	1	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,385.0	9,386.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/	:		9,403.0	9,404.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,500.0	9,501.0	3.00	,	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
4/2/2012 12:00AM	MESAVERDE/			9,518.0	9,519.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

Operation Summary Report

Well: NBU 921-25C1AS RED Spud Conductor: 1/13/2011 Spud Date: 1/23/2011 Project: UTAH-UINTAH Site: NBU 921-25D PAD Rig Name No: MILES 3/3 Event: COMPLETION End Date: 4/13/2012 Start Date: 3/15/2012

Active Datum: RKB @4 955 01ft (above Mean Sea

UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0

Active Datum: RI Level)	KB @4,9	955.01ft (abo	ve Mean Sea		UWI: N	/V/NW /0/9	9/S/21/E/25	5/0/0/26/PM/N/80	00/W/0/893/0/0
Date	s	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/16/2012	9:15	- 11:00	1.75	COMP	33	<u> </u>	Р	N. S.	FILL SURFACE CSG, MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI, HELD FOR 15 MIN LOST 10
•									PSI.
									PSI TEST T/ 3500 PSI, HELD FOR 15 MIN LOST 31 PSI.
									1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 86 PSI.
									NO COMMUNICATION OR MIGRATION WITH SURFACE CSG
									BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
3/29/2012	7:00	- 7:15	0.25	COMP	48		Р		HSM. SIME OPS
	7:15	- 8:00	0.75	COMP	37	В	P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH PERF AS PER D-FIT DESIGN. POOH.
	8:00	- 15:00	7.00	COMP	33	G	P		RU HALLIBURTON SURFACE GAUGES. D-FIT STG 1)RU LINES. PSI TEST LINES T/ 8000 PSI.
									GOOD TEST. BLEED OFF PSI.
									OPEN WELL = 300 PSI.
									10:02 AM BEG PUMPING.
									BRK @ 5.3 BPM @ 4280 PSI.
									PUMP 5 BBL @ 5.3 BPM @ 3294 PSI.
			F.						PUMP 10 BBL @ 5.3 BPM @ 3280 PSI
									PUMP 15 BBLS @ 5.3 BPM @ 3260 PSI.
									PUMP 20 BBLS @ 5.3 BPM @ 3308 PSI.
									PUMP 24 BBLS @ 5.3 BPM @ 3309 PSI. SHUT DOWN PUMP @ 10:12 AM.
									ISIP 3000 PSI, FG .72.
									5 MIN PSI = 2729
									10 MIN PSI = 2641
									15 MIN PSI = 2581
									20 MIN PSI = 2534
									25 MIN PSI = 2493
									30 MIN PSI = 2457
									SWI @ 10:41 AM.
									CONT MONITORING W/ HALLIBURTON SURFACE GAUGES FOR 24 HRS.
3/30/2012	10:00	- 15:00	5.00	COMP	37		Р		REMOVED PRESSURE GUAGE
									PERF REMAINDER OF STG 1)PU 3 1/8 EXP GUN, 23
									GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS
									PER PERF DESIGN. POOH. SWIFW

/ell: NBU 921-	25C1AS RED		Spud Co	nductor:	1/13/2011		Spud Date: 1/2:	3/2011				
roject: UTAH-I	JINTAH		Site: NBL	J 921-25[PAD		Rig Name No: MILES 3/3					
vent: COMPLI	ETION		Start Dat	e: 3/15/20	012		· · · · · · · · · · · · · · · · · · ·	End Date: 4/13/2012				
ctive Datum: F	RKB @4,955.01ft (abov	ve Mean Sea		UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation				
4/2/2012	10:30 - 18:00	7.50	COMP	36	В	P		FRAC STG 1)WHP 1427 PSI, BRK 3421 PSI @ 4.6 BPM. ISIP 2960 PSI, FG .75. CALC HOLES OPEN @ 49.8 BPM @ 4942 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 3116 PSI, FG .76, NPI 156 PSI. MP 6092 PSI, MR 57.6 BPM, AP 5222 PSI, AR 53 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L D-FIT PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9248' P/U PERF AS PER D-FIT DESIGN. STG 2) # 2 D-FIT)OPEN WELL = 2137 PSI. 17:04 BEG PUMPING. BRK @ 4.5 BPM @ 3227 PSI. PUMP 5 BBL @ 4.6 BPM @ 2764 PSI PUMP 10 BBL @ 4.6 BPM @ 2733 PSI. PUMP 20 BBLS @ 4.6 BPM @ 2733 PSI. PUMP 20 BBLS @ 4.6 BPM @ 2714 PSI. 17:09 SD ISIP @ 2378 PSI. FG .69 5 MIN @ 2184 PSI. 10 MIN @ 2162 PSI. 15 MIN @ 2149 PSI. 20 MIN @ 2151 PSI. 25 MIN @ 2141 PSI. 30 MIN @ 2133 PSI. 17:39 SWI. TOTAL BBLS PUMPED = 31 BBLS (COUNTING BRK DWN.)				

Operation Summary Report

Well: NBU 921-25C1AS RED Spud Conductor: 1/13/2011 Spud Date: 1/23/2011 Project: UTAH-UINTAH Site: NBU 921-25D PAD Rig Name No: MILES 3/3 Event: COMPLETION Start Date: 3/15/2012 End Date: 4/13/2012 UWI: NW/NW/0/9/S/21/E/25/0/0/26/PM/N/800/W/0/893/0/0 Active Datum: RKB @4,955.01ft (above Mean Sea Date Phase P/U Code Time Duration Sub MD From Operation Start-End (hr) Code (ft) 4/3/2012 11:30 - 18:00 6.50 COMP 36 P В FINISH PERF STG 2)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH PERF AS PER

DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 2)WHP 2008 PSI, BRK 2428 PSI @ 4.4 BPM. ISIP 2177 PSI, FG .67. CALC HOLES OPEN @ 48.1 BPM @ 5067 PSI = 79% HOLES OPEN. (19/24 HOLES OPEN) ISIP 2600 PSI, FG .72, NPI 423 PSI. MP 5167 PSI, MR 48.8 BPM, AP 4248 PSI, AR 47.3 PUMPED 30/50 SAND IN THIS STAGE X-OVER FOR W L PERF D-FIT STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 90 DEG PHASING, RIH PERF AS PER D-FIT DESIGN, POOH. D-FIT STG 3)OPEN WELL = 572 PSI. 14:02 BEG PUMPING. BRK @ 4.6 BPM @ 4559 PSI. PUMP 5 BBL @ 4.6 BPM @ 2694 PSI. PUMP 10 BBL @ 4.6 BPM @ 2389 PSI PUMP 15 BBLS @ 4.7 BPM @ 2270 PSI. PUMP 20 BBLS @ 4.7 BPM @ 2238 PSI. PUMP 24 BBLS @ 4.7 BPM @ 2226 PSI. 14:08 SD ISIP @ 2029 PSI, FG .66 5 MIN @ 1825 PSI.

> CONT D-FIT W/ HALLIBURTON SURFACE GAUGES FOR 12 HRS.

TOTAL BBLS PUMPED = 26 BBLS (COUNTING BRK

10 MIN @ 1776 PSI. 15 MIN @ 1744 PSI. 20 MIN @ 1719 PSI. 25 MIN @ 1703 PSI. 30 MIN @ 1692 PSI. 14:38 SWI.

DWN.)

					JS ROC ation S	1	EGION Iry Report	
Well: NBU 921-	25C1AS RED		Spud Co		1/13/2011		Spud Date: 1/23	/2011
Project: UTAH-			Site: NBI					Rig Name No: MILES 3/3
Event: COMPLI	ETION			e: 3/15/2				End Date: 4/13/2012
	RKB @4,955.01ft (abov	e Mean Sea	Journal	1		9/S/21/E/2	25/0/0/26/PM/N/80	
Level)							·	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/4/2012	8:00 - 18:00	10.00	COMP	36	B	P		FINISH PERF STG 3)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 3)WHP 1551 PSI, BRK 2126 PSI @ 4.7 BPM. ISIP 1948 PSI, FG .65. CALC PERFS OPEN @ 52.5 BPM @ 2433 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2448 PSI, FG .71, NPI 500 PSI. MP 6706 PSI, MR 54.6 BPM, AP 4376 PSI, AR 53.3 BPM, PUMPED 30/50 OWATTA SAND. SWI, X-OVER FOR WL. PERF D-FIT STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8702' P/U PERF AS PER D-FIT DESIGN. POOH. X-OVER FOR FRAC CREW. D-FIT STG 4) OPEN WELL = 1236 PSI. 12:45 BEG PUMPING. BRK @ 4.7 BPM @ 3420 PSI. PUMP 5 BBL @ 4.6 BPM @ 2606 PSI. PUMP 10 BBL @ 4.6 BPM @ 2606 PSI. PUMP 15 BBLS @ 4.6 BPM @ 2609 PSI. PUMP 24 BBLS @ 4.6 BPM @ 2609 PSI. PUMP 24 BBLS @ 4.6 BPM @ 2600 PSI. 12:50 SD ISIP @ 2419 PSI. FG .71 5 MIN @ 2198 PSI. 10 MIN @ 2100 PSI. 15 MIN @ 2047 PSI. 20 MIN @ 2004 PSI. 25 MIN @ 1997 PSI. 30 MIN @ 1997 PSI. 30 MIN @ 1954 PSI. 13:20 SWI. TOTAL BBLS PUMPED = 26 BBLS (COUNTING BRK DWN.)
4/5/2012	6:45 - 7:00	0.25	СОМР	48		Р	· · · · · · · · · · · · · · · · · · ·	CONT D-FIT W/ HALLIBURTON SURFACE GAUGES FOR 12 HRS. HSM. SIME OPS

5/25/2012

1:51:33PM

Vell: NBU 921-2	5C1AS RED		Spud Cor	nductor:	1/13/2011		Spud Date: 1/23/2011				
roject: UTAH-UI	INTAH		Site: NBL	921-25[PAD		Rig Name No: MILES 3/3				
vent: COMPLET	TION		Start Date	e: 3/15/20)12		End Date: 4/13/2012				
ctive Datum: RK	(B @4,955.01ft (abov	e Mean Sea		T		9/S/21/E/2	5/0/0/26/PM/N/800/W/0/893/0/0				
evel)											
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)				
	7:00 - 18:00	11.00	COMP	36	В	P	FINISH PERF STG 4)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW.				
							FRAC STG 4)WHP 1980 PSI, BRK 2361 PSI @ 4.5 BPM. ISIP 2160 PSI, FG .69. CALC PERFS OPEN @ 50.4 BPM @ 4223 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN)				
							ISIP 2721 PSI, FG .75, NPI 561 PSI. MP 4924 PSI, MR 50.9 BPM, AP 4131 PSI, AR 49.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, X-OVER FOR				
							WL. PERF D-FIT STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8421' P/U PERF AS PER D-FIT DESIGN. SWI, X-OVER FOR FRAC CREW.				
							D-FIT STG 5) OPEN WELL = 1450 PSI. 11:32 BEG PUMPING. BRK @ 4.7 BPM @ 6705 PSI. PUMP 5 BBL @ 4.6 BPM @ 2799 PSI. PUMP 10 BBL @ 4.6 BPM @ 2736 PSI PUMP 15 BBLS @ 4.6 BPM @ 2751 PSI. PUMP 20 BBLS @ 4.6 BPM @ 2756 PSI.				
							PUMP 24 BBLS @ 4.6 BPM @ 2754 PSI. 11:38 SD ISIP @ 2481 PSI. FG .73 5 MIN @ 2079 PSI. 10 MIN @ 1996 PSI. 15 MIN @ 1952 PSI.				
							20 MIN @ 1926 PSI. 25 MIN @ 1905 PSI. 30 MIN @ 1890 PSI. 12:08 SWI. TOTAL BBLS PUMPED = 27 BBLS (COUNTING BRK				
							DWN.) CONT D-FIT W/ HALLIBURTON SURFACE GAUGES FOR 12 HRS.				
4/6/2012	6:45 - 7:00	0.25	COMP	48		Р	HSM. SIME OPS				

Vell: NBU 921-2	25C1AS F	RED		Spud Co	nductor:	1/13/2011		Spud Date: 1/23/2011
Project: UTAH-U	JINTAH			Site: NBI	J 921-25	D PAD		Rig Name No: MILES 3/3
vent: COMPLE	TION	-		Start Dat	e: 3/15/2	012		End Date: 4/13/2012
ctive Datum: R evel)	KB @4,9	55.01ft (abov	ve Mean Sea		UWI: N	W/NW/0/9	9/S/21/E/2	5/0/0/26/PM/N/800/W/0/893/0/0
Date	100000	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
	7:00	- 18:00	11.00	COMP	36	В	Р	FINISH PERF STG 5)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW.
								FRAC STG 5)WHP 1430 PSI, BRK 2568 PSI @ 4.5 BPM. ISIP 2397 PSI, FG .72. CALC PERFS OPEN @ 50.1 BPM @ 3904 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN)
								ISIP 2469 PSI, FG .73, NPI 72 PSI. MP 5299 PSI, MR 51.5 BPM, AP 3993 PSI, AR 50.5
								BPM, PUMPED 30/50 OWATTA SAND. SWI, X-OVER FOR WL.
								PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 120 DEG PHASING. RIH SET CBP @ 8117' P/U PERF AS PER DEIGN. POOH. X-OVER FOR FRAC CREW.
								FRAC STG 6)WHP 950 PSI, BRK 3541 PSI @ 4.6 BPM. ISIP 1850 PSI, FG .67. CALC PERFS OPEN @ 59.9 BPM @ 3942 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2107 PSI, FG .71, NPI 257 PSI. MP 5713 PSI, MR 60 BPM, AP 4068 PSI, AR 59 BPM, PUMPED 30/50 OWATTA SAND. SWI, X-OVER FOR WL.
								PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 7778'. POOH. SWI. DONE FRACING THIS WELL.
4/11/2012	7:00	~: 7:15	0.25	COMP	48		·P	TOTAL SAND = 183,500 LBS TOTAL CLFL = 8,983 BBLS JSA- RDSU. ROADING RIG.
4/12/2012		- 15:00 - 7:15	7.75	COMP	30	Α	P P	RDSU. ROAD RIG AND EQUIP FROM NBU 1022-11F TO LOCATION. HAVE HOLES FROM MONITORING WELL. UNABLE TO RUSU. ORDER ROCK AND FILL IN. SPOT RIG AND UNWRAP LINES. TO WINDY TO RUSU. WAIT ON WIND. SDFN. WILL RUSU IN AM. JSA- RUSU. ND/NU. PU TBG. PRES TEST.
	7:15	- 8:30	1.25	COMP	30	Α	Р	RUSU. ND WH. NU BOP. RU FLOOR AND TBG EQUIP
	8:30	- 12:30	4.00	COMP	31	1	P	MU 3-7/8" BIT, POBS, AND 1.87" XN. RIH AS MEAS AND PU 2-3/8" L-80 TBG. TAG AT 7761' W/ 245-JTS IN. RU DRLG EQUIP

/ell: NBU 921-	25C1AS F	RED		Spud Co	nductor: '	1/13/2011		Spud Date: 1/23/2011				
roject: UTAH-l	HATMIL			Site: NBL	J 921-25[PAD			Rig Name No: MILES 3/3			
vent: COMPLE	ETION			Start Date	e: 3/15/20)12			End Date: 4/13/2012			
ctive Datum: R	RKB @4,9	55.01ft (abov	e Mean Sea		UWI: N	00/W/0/893/0/0						
evel)	Kilmah telah	1.36 (1941 - N. J.		51 <u>24</u> 0702 035 4.03	0.020948.0	tora escidad	3. 42.2400 st	\$7.750.75 <u>0.8</u> 8777.5 (\$80				
Date	St	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation			
	12:30	- 16:00	3.50	COMP	44	C.	Р		FILL TBG. PRES TEST CSG AND BOP TO 3000#. GOOD. EST CIRC AND D/O PLUGS.			
									#1- C/O 10' SAND TO CBP AT 7771'. D/O IN 11 MIN. 300# INC. 0-100# FCP. RIH.			
•									#2- C/O 50' SAND TO CBP AT 8117'. D/O IN 7 MIN. 700# INC. 100-300# FCP. RIH.			
									#3- C/O 30' SAND TO CBP AT 8423'. D/O IN 4 MIN. 300# INC. 200-500# FCP. RIH.			
									#4- C/O 40' SAND TO CBP AT 8712'. D/O IN 4 MIN. 600# INC. 300-500# FCP. CIRC CLEAN. RIH W/ 1-JT AND CIRC CLEAN W/EOT AT 8744'. SHUT WELL IN.			
4/13/2012	7:00	- 8:00	1.00	COMP	49	Α			DRAIN EQUIP. SDFN RIG WOULDN'T START. WORK ON RIG TO GET STARTED.			
	8:00	- 11:00	3.00	COMP	44	С	Р		SITP 0, SICP 1900. BWD. CONT RIH AS D/O PLUGS.			
									#5- C/O 55' SAND TO CBP AT 8970'. D/O IN 4 MIN. 600# INC. 500-200# FCP. RIH.			
									#6- C/O 30' SAND TO CBP AT 9248'. D/O IN 4 MIN. 400# INC. 200-500# FCP. RIH.			
									BTM PERF AT 9519'. PBTD AT 9960'. C/O TO 9631' W/ 304-JTS IN. (112' RATHOLE). CIRC CLEAN.			
									RD PWR SWIVEL. POOH AS LD 20-JTS, PU 4" 10K			
									HANGER. LUBE IN AND LAND 284-JTS 2-3/8" L-80 TBG W/ EOT AT 9010.13'. RD FLOOR. ND BOP. NU			
									WH. HOOK UP LINES. POBS AT 2100#. PRES TEST LINES TO 3000#. SITP 700#, SICP 1900#. TURN OVER TO FBC AND SALES. RDSU.			
									TBG DETAIL KB 14.00 4" 10K HANGER .83			
									284-JTS 2-3/8" L-80 8993.10 1.87" XN POBS 2.20			
									EOT 9010.13			
									314-JTS DELIVERED. 30-JTS TRANSFERED TO 25D1BS.			
	11:30	-		COMP	50				TLTR 8983, TLR 1500, LLTR 7483. WELL TURNED TO SALES AT 1130 HR ON 4/13/2012 - 770 MCFD, 1920 BWPD, FCP 1700#, FTP			
4/14/2012									650#, CK 20/64			
4/18/2012	7:00	-			50				WELL IP'D ON 4/18/2012 - 1758 MCFD, 0 BOPD, 480 BWPD, CP 2186, FTP 1360#, CK 20/64, LP 91#, 24 HRS			

Project: UTAH - UTM (feet), NAD27, Zone 12N Site: UINTAH_NBU 921-25D PAD Well: NBU 921-25C1AS

Wellbore: NBU 921-25C1AS

Section: SHL:

+N/-S 0.00

Design: NBU 921-25C1AS (wp01) ENSIGN 146

Latitude: 40.012084 Longitude: -109.505636

GL: 4941.00

E/-W Northing 0.00 14533953.48

KB: 14' RKB + 4941' GL @ 4965.00ft (ENSIGN 148)

WELL DETAILS: NBU 921-25C1AS Ground Level: Easting 2058860.26 4941.00 Latittude 40.012084 Longitude -109.505636

FORMATION TOP DETAILS

TVDPath 4822.00 7516.00 **MDPath** 5057.18 7774.09 8714.13 9255.16 8456.00 8997.00

Formation Top Wasatch Top Mesaverde (top of cylinder) MVU21 MVL1



Name Size 8 5/8" 8-5/8

Weatherford®



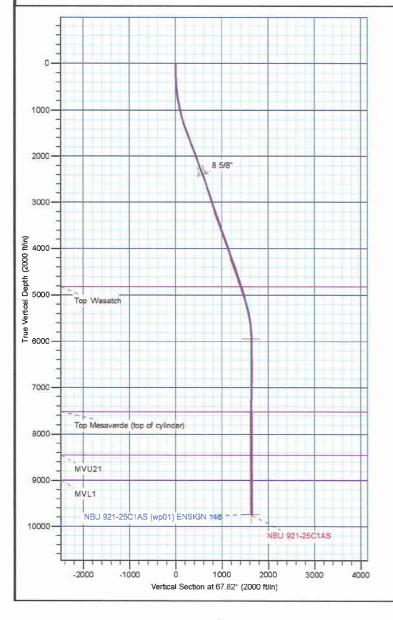
Azimuths to True North Magnetic North: 11.12

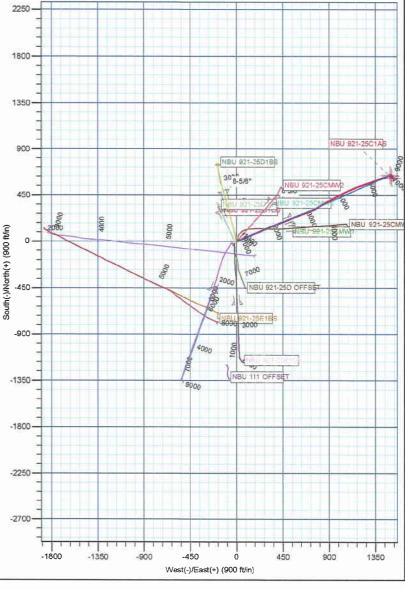
Magnetic Field Strength: 52370.0snT Dip Angle: 65.89° Date: 2/7/2011 Model: IGRF2010

	CASING	DETAILS
TVD	MD	N
2398.14	2490.38	8

	DESIGN TARGET DETAILS										
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape			
drillers target (25C1AS)	5940.00	645.92	1490.63	14534624.30	2060339.85	40.013857	-109.500313	Circle (Radius: 15.00)			
intercept top of cylinder (25C1AS)	7516.00	633.92	1498.63	14534612.44	2060348.05	40.013824	-109.500285	Point			
NBU 921-25C1AS BHL	9740.00	615.92	1510.63	14534594.65	2060360.35	40.013775	-109.500242	Circle (Radius: 25.00)			

SECTION DETAILS											
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect			
2523.00	19.70	66.43	2428.83	228.43	549.04	0.00	0.00	594.65			
2673.00	19.70	66.43	2570.05	248.65	595.38	0.00	0.00	645.20			
2700.23	19.17	66.07	2595.73	252.30	603.68	2.00	-167.42	654.25			
5102.66	19.17	66.07	4864.96	572.28	1324.71	0.00	0.00	1442.73			
6198.02	0.00	146.30	5940.00	645.92	1490.63	1.75	180.00	1624.17			
6383.78	0.56	146.30	6125.76	645.17	1491.13	0.30	146.30	1624.35			
9998.19	0.56	146.30	9740.00	615.92	1510.63	0.00	0.00	1631.37			





Survey Report

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH NBU 921-25D PAD

Well: Wellbore: NBU 921-25C1AS

NBU 921-25C1AS

Design:

NBU 921-25C1AS

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 921-25C1AS

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

True

Minimum Curvature

Mean Sea Level

edm5000p

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System: Geo Datum:

Universal Transverse Mercator (US Survey Fee System Datum:

NAD 1927 (NADCON CONUS)

Map Zone:

Zone 12N (114 W to 108 W)

Site

UINTAH_NBU 921-25D PAD

Site Position:

Lat/Long

Northing:

14.533.953.48 ft

Latitude:

40.012084

From:

Easting:

2.058,860.26 ft

Longitude:

-109.505636

Position Uncertainty:

0.00 ft

Slot Radius:

ח י

Grid Convergence:

0.96°

Well **Well Position** NBU 921-25C1AS

+N/-S

+E/-W

Northing: Easting:

14,533,953.48 ft 2,058,860.26 ft

11.12

Latitude: Longitude: 40.012084

Position Uncertainty

0.00 ft 0.00 ft

0.00 ft

Wellhead Elevation:

2/7/2011

10.00

Ground Level:

65.89

-109.505636 4,941.00 ft

Wellbore

NBU 921-25C1AS

Magnetics

Model Name

NBU 921-25C1AS

Sample Date

Declination

Dip Angle

Field Strength

(nT)

IGRF2010

Design **Audit Notes:**

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

0.00

10.00

Vertical Section:

Depth From (TVD)

+N/-S

+E/-W

Direction

52,370

(ft)

(ft)

0.00

(ft)

(°)

67.41

Survey Program From

(ft)

Date 7/25/2011

To (ft) Survey (Wellbore)

Tool Name

Description

165.00 2,534.00

2,523.00 Survey #1 (NBU 921-25C1AS) 10,020.00 Survey #2 (NBU 921-25C1AS) MWD MWD MWD - Standard MWD - Standard

y Measured Depth (ft)	inclination (°)	Azlmuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
165.00	0.08	262.14	165.00	-0.01	-0.11	-0.10	0.05	0.05	0.00
223.00	0.67	81.85	223.00	0.03	0.19	0.18	1.29	1.02	309.8
311.00	2.37	78.64	310.96	0.46	2.48	2.47	1.93	1.93	-3.6
428.00	3.61	70.91	427.80	2.14	8.33	8.52	1.11	1.06	-6.6
518.00	4.50	74.95	517.58	3.98	14.42	14.85	1.04	0.99	4.49
608.00	6.42	64.22	607.17	7.09	22.36	23.37	2.41	2.13	-11.92
698.00	7.59	64.32	696.49	11.85	32.25	34.33	1.30	1.30	0.1
788.00	8.97	66.76	785.55	17.20	44.06	47.28	1.58	1.53	2.7
878.00	10.75	66.42	874.22	23.32	58.20	62.69	1.98	1.98	-0.38

APC Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 921-25D PAD NBU 921-25C1AS

Wellbore: NBU 921-25C1AS Design: NBU 921-25C1AS Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:
MD Reference:
North Reference:

Database:

Well NBU 921-25C1AS 14' RKB + 4941' GL @

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

True

Minimum Curvature

edm5000p

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
			***	***	(u)				1,1,00,0
968.00	12.84	65.18	962.32	30.88	74.97	81.08	2.34	2.32	-1.38
1,058.00	14.42	66.41	1,049.78	39.56	94.32	102.28	1.78	1.76	1.37
1,148.00	16.09	65.80	1,136.60	49.16	115.96	125.95	1.86	1.86	-0.68
1,238.00	17.32	66.33	1,222.80	59.65	139.61	151.81	1.38	1.37	0.59
1,328.00	18.03	67.47	1,308.56	70.37	164.74	179.14	0.88	0.79	1.27
1,418.00	19.64	67.15	1,393.73	81.58	191.55	208.19	1.79	1.79	-0.36
1,508.00	20.64	66.67	1,478.23	93.73	220.05	239.18	1.13	1.11	-0.53
1,598.00	21.02	65.89	1,562.35	106.61	249.35	271.17	0.52	0.42	-0.87
1,688.00	21.59	65.12	1,646.20	120.17	279.11	303.85	0.71	0.63	-0.86
1,778.00	21.10	66.15	1,730.02	133.69	308.94	336.60	0.69	-0.54	1.14
1,868.00	21.06	66.08	1,814.00	146.79	338.54	368.96	0.05	-0.04	-0.08
1,958.00	19.36	70.02	1,898.46	158.45	367.35	400.03	2.42	-1.89	4.38
2,048.00	20.17	70.76	1,983.16	168.66	396.02	430.42	0.94	0.90	0.82
2,138.00	20.53	69.62	2,067.54	179.27	425.46	461.68	0.59	0.40	-1.27
2,228.00	19.94	67.98	2,151.99	190.52	454.48	492.80	0.91	-0.66	-1.82
2,318.00	20.40	68.79	2,236.47	201.95	483.33	523.83	0.60	0.51	0.90
2,408.00	20.43	68.61	2,320.81	213.35	512.58	555.21	0.08	0.03	-0.20
2,468.00	20.05	67.47	2,377.11	221.11	531.83	575.97	0.91	-0.63	-1.90
2,523.00	19.70	66.43	2,428.83	228.43	549.04	594.66	0.90	-0.64	-1.89
2,534.00	20.12	66.95	2,439.18	229.91	552.48	598.41	4.14	3.82	4.73
2,625.00	20.15	67.73	2,524.61	241.98	581.39	629.73	0.30	0.03	0.86
2,715.00	18.89	66.02	2,609.44	253.78	609.04	659.80	1.54	-1.40	-1.90
2,806.00	17.50	70.50	2,695.89	264.33	635.40	688.19	2.17	-1.53	4.92
2,897.00	17.81	73.75	2,782.61	272.79	661.66	715.69	1.14	0.34	3.57
2,987.00	17.75	71.62	2,868.31	280.97	687.89	743.05	0.73	-0.07	-2.37
3,078.00	17.19	69.12	2,955.11	290.14	713.62	770.32	1.03	-0.62	-2.75
3,169.00	15.81	64.62	3,042.37	300.25	737.39	796.15	2.07	-1.52	-4.95
3,259.00	16.81	58.99	3,128.75	312.21	759.62	821.27	2.08	1.11	-6.26
3,350.00	19.19	58.25	3,215.29	326.86	783.62	849.06	2.63	2.62	-0.81
3,441.00	19.75	57.24	3,301.09	343.05	809.27	878.96	0.72	0.62	-1.11
3,531.00	19.44	57.24	3,385.87	359.38	834.65	908.66	0.34	-0.34	0.00
3,622.00	18.38	57.99	3,471.96	375.18	859.55	937.72	1.20	-1.16	0.82
3,713.00	19.63	60.50	3,558.00	390.31	885.02	967.05	1.64	1.37	2.76
3,803.00	20.75	64.87	3,642.47	404.53	912.62	997.99	2.09	1.24	4.86
3,894.00	20.13	61.12	3,727.75	418.94	940.92	1,029.66	1.59	-0.68	-4.12
3,985.00	20.19	63.12	3,813.17	433.60	968.64	1,060.89	0.76	0.07	2.20
4,075.00	20.81	63.00	3,897.47	447.88	996.74	1,092.31	0.69	0.69	-0.13
4,166.00	18.81	62.12	3,983.08	462.08	1,024.11	1,123.04	2.22	-2.20	-0.97
4,257.00	16.44	62.37	4,069.81	474.92	1,048.49	1,150.48	2.61	-2.60	0.27
4,347.00	17.19	64.75	4,155.96	486.49	1,071.81	1,176.45	1.13	0.83	2.64
4,438.00	17.81	67.50	4,242.75	497.56	1,096.83	1,203.80	1.14	0.68	3.02
4,529.00	17.75	65.62	4,329.40	508.61	1,122.32	1,231.59	0.63	-0.07	-2.07
4,619.00	17.19	66.12	4,415.25	519.66	1,146.98	1,258.59	0.64	-0.62	0.56

Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 921-25D PAD NBU 921-25C1AS

Wellbore: Design:

NBU 921-25C1AS NBU 921-25C1AS Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference: **MD Reference:** North Reference:

Database:

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

True

Minimum Curvature

Well NBU 921-25C1AS

edm5000p

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
4,710.00	20.30	68.31	4,501.41	530.94	1,173.95	1,287.83	3.50	3.42	2.4
4,801.00	21.13	71.50	4,586.53	541.98	1,204.17	1,319.97	1.54	0.91	3.5
4,891.00	20.63	71.00	4,670.62	552.28	1,234.55	1,351.98	0.59	-0.56	-0.5
4,982.00	18.25	70.75	4,756.43	562.20	1,263.16	1,382.21	2.62	-2.62	-0.2
5,073.00	18.19	69.37	4,842.87	571.91	1,289.90	1,410.63	0.48	-0.07	-1.5
5,163.00	18.31	73.50	4,928.34	580.87	1,316.61	1,438.73	1.44	0.13	4.5
5,254.00	18.92	73.33	5,014.58	589.16	1,344.45	1,467.61	0.67	0.67	-0.1
5,345.00	17.06	71.00	5,101.13	597.74	1,371.20	1,495.61	2.19	-2.04	-2.5
5,435.00	15.81	67.75	5,187.45	606.68	1,395.04	1,521.05	1.72	-1.39	-3.6
5,526.00	14.00	70.87	5,275.39	614.98	1,416.91	1,544.44	2.18	-1.99	3.4
5,617.00	13.06	72.37	5,363.86	621.71	1,437.11	1,565.67	1.10	-1.03	1.6
5,708.00	10.94	69.25	5,452.87	627.88	1,454.99	1,584.54	2.44	-2.33	-3.4
5,798.00	9.38	64.50	5,541.46	634.06	1,469.59	1,600.41	1.97	-1.73	-5.2
5,889.00	7.06	71.87	5,631.52	639.00	1,481.60	1,613.39	2.80	-2.55	8.1
5,979.00	5.06	73.62	5,721.01	641.84	1,490.67	1,622.85	2.23	-2.22	1.9
6,070.00	2.94	79.12	5,811.79	643.41	1,496.81	1,629.13	2.36	-2.33	6.0
6,161.00	2.81	80.12	5,902.67	644.23	1,501.30	1,633.59	0.15	-0.14	1.1
6,251.00	1.75	110.25	5,992.60	644.14	1,504.76	1,636.75	1.74	-1.18	33.4
6,342.00	1.81	112.62	6,083.56	643.10	1,507.39	1,638.78	0.10	0.07	2.6
6,432.00	1.69	119.62	6,173.52	641.90	1,509.86	1,640.59	0.27	-0.13	7.7
6,523.00	1.63	129.00	6,264.48	640.42	1,512.03	1,642.03	0.31	-0.07	10.3
6,613.00	1.56	142.25	6,354.44	638.65	1,513.77	1,642.96	0.42	-0.08	14.7
6,704.00	1.63	150.62	6,445.41	636.54	1,515.17	1,643.44	0.27	0.08	9.2
6,795.00	1.81	154.37	6,536.37	634.12	1,516.42	1,643.67	0.23	0.20	4.1
6,886.00	1.81	156.62	6,627.32	631.50	1,517.62	1,643.76	0.08	0.00	2.4
6,976.00	1.88	163.50	6,717.28	628.78	1,518.60	1,643.63	0.26	0.08	7.6
7,067.00	1.94	166.87	6,808.23	625.85	1,519.37	1,643.21	0.14	0.07	3.7
7,158.00	1.49	235.37	6,899.19	623.68	1,518.75	1,641.80	2.16	-0.49	75.2
7,248.00	1.38	224.00	6,989.16	622.23	1,517.03	1,639.66	0.34	-0.12	-12.6
7,339.00	1.56	208.87	7,080.13	620.36	1,515.68	1,637.69	0.47	0.20	-16.6
7,430.00	1.44	202.00	7,171.10	618.22	1,514.65	1,635.92	0.24	-0.13	-7.5
7,520.00	0.50	246.25	7,261.09	617.01	1,513.87	1,634.73	1.26	-1.04	49.1
7,611.00	1.56	341.00	7,352.08	618.02	1,513.10	1,634.41	1.84	1.16	104.1
7,702.00	1.00	334.00	7,443.06	619.91	1,512.35	1,634.44	0.64	-0.62	-7.6
7,792.00	0.75	316.75	7,533.05	621.04	1,511.60	1,634.19	0.40	-0.28	-19.1
7,883.00	0.94	329.00	7,624.04	622.11	1,510.81	1,633.87	0.29	0.21	13.4
7,973.00	2.19	343.75	7,714.00	624.40	1,509.95	1,633.95	1.45	1.39	16.3
8,064.00	1.75	342.75	7,804.95	627.39	1,509.05	1,634.27	0.48	-0.48	-1.1
8,155.00	1.00	318.62	7,895.92	629.32	1,508.11	1,634.15	1.02	-0.82	-26.5
8,245.00	1.06	298.00	7,985.91	630.30	1,506.86	1,633.36	0.41	0.07	-22.9
8,339.00	0.81	284.00	8,079.89	630.87	1,505.44	1,632.28	0.36	-0.27	-14.8
8,429.00	0.75	271.50	8,169.89	631.03	1,504.24	1,631.23	0.20	-0.07	-13.8
8,520.00	0.69	262.00	8,260.88	630.97	1,503.10	1,630.16	0.15	-0.07	-10.4

APC Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 921-25D PAD NBU 921-25C1AS

Wellbore: Design: NBU 921-25C1AS NBU 921-25C1AS Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 921-25C1AS

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

True

Minimum Curvature

edm5000p

Measured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,611.00	0.50	197.37	8,351.87	630.52	1,502.44	1,629.37	0.72	-0.21	-71.02
8,701.00	0.56	204.25	8,441.87	629.74	1,502.14	1,628.80	0.10	0.07	7.64
8,792.00	0.56	215.87	8,532.87	628.98	1,501.70	1,628.09	0.12	0.00	12.77
8,883.00	1.25	140.25	8,623.86	627.85	1,502.07	1,628.01	1.36	0.76	-83.10
8,973.00	1.63	147.63	8,713.83	626.02	1,503.38	1,628.52	0.47	0.42	8.20
9,064.00	1.81	124.87	8,804.79	624.10	1,505.26	1,629.51	0.77	0.20	-25.01
9,155.00	1.75	101.50	8,895.75	623.00	1,507.80	1,631.43	0.79	-0.07	-25.68
9,245.00	1.94	103.75	8,985.70	622.37	1,510.62	1,633.80	0.23	0.21	2.50
9,336.00	2.13	104.50	9,076.64	621.58	1,513.76	1,636.39	0.21	0.21	0.82
9,427.00	2.13	121.37	9,167.58	620.28	1,516.84	1,638.73	0.69	0.00	18.54
9,517.00	2.19	141.25	9,257.52	618.06	1,519.34	1,640.19	0.83	0.07	22.09
9,608.00	2.25	144.75	9,348.45	615.25	1,521.46	1,641.07	0.16	0.07	3.85
9,699.00	2.00	143.37	9,439.39	612.52	1,523.44	1,641.85	0.28	-0.27	-1.52
9,789.00	2.00	157.37	9,529.33	609.81	1,524.98	1,642.23	0.54	0.00	15.56
9,880.00	1.88	152.37	9,620.28	607.02	1,526.28	1,642.36	0.23	-0.13	-5.49
9,970.00	1.98	152.22	9,710.23	604.33	1,527.69	1,642.63	0.11	0.11	-0.17
last mwd s	survey								
10,020.00	2.04	152.14	9,760.20	602.78	1,528.51	1,642.79	0.12	0.12	-0.16

9,970.00 9,710.23 604.33 1,527.69 last mwd survey 10,020.00 9,760.20 602.78 1,528.51 projection	Design Annotations Measured Depth (ft)	Vertical Depth (ft)	Local Coord +N/-S (ft)	dinates +E/-W (ft)	Comment
10,020.00 9,760.20 602.78 1,528.51 projection	9,970.00	9,710.23	604.33	1,527.69	last mwd survey
· · · · · · · · · · · · · · · · · · ·	10,020.00	9,760.20	602.78	1,528.51	projection

Checked By:	Approved By:	Date:	

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_NBU 921-25D PAD NBU 921-25C1AS

NBU 921-25C1AS

Design: NBU 921-25C1AS

Survey Report - Geographic

25 July, 2011





Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH NBU 921-25D PAD

Well:

NBU 921-25C1AS

Wellbore: Design:

NBU 921-25C1AS NBU 921-25C1AS Local Co-ordinate Reference:

TVD Reference: MD Reference:

Well NBU 921-25C1AS

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

North Reference: True

Survey Calculation Method:

Database:

Minimum Curvature

edm5000p

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System:

Universal Transverse Mercator (US Survey Fee System Datum:

Geo Datum:

NAD 1927 (NADCON CONUS)

Map Zone:

Zone 12N (114 W to 108 W)

Mean Sea Level

Site

UINTAH_NBU 921-25D PAD

Site Position:

Northing:

14.533.953.48 ff

Latitude:

40.012084

From:

Lat/Long

Easting:

2,058,860.26 ft

Longitude:

-109.505636

Position Uncertainty:

0.00 ft

Slot Radius:

0 '

Grid Convergence:

0.96°

Well **Well Position** NBU 921-25C1AS

+N/-S

0.00 ft 0.00 ft Northing:

14.533.953.48 ft

Latitude:

40 012084

+E/-W **Position Uncertainty**

0.00 ft

Easting: Wellhead Elevation:

2/7/2011

10.00

2,058,860.26 ft

11.12

Longitude: **Ground Level:**

-109.505636 4,941.00 ft

IGRF2010

Magnetics

Wellbore

NBU 921-25C1AS **Model Name**

Sample Date

Declination

Dip Angle

Field Strength

67.41

(nT)

NBU 921-25C1AS

Audit Notes:

Version:

Design

Phase:

ACTUAL

Tie On Depth:

0.00

10.00

52,370

Vertical Section:

Depth From (TVD)

+N/-S (ft)

0.00

+E/-W (ft)

Direction

65.89

1.0

Survey Program From (ft)

To (ft)

Date 7/25/2011 Survey (Wellbore)

Tool Name

Description

165.00 2.534.00

2,523.00 Survey #1 (NBU 921-25C1AS) 10,020.00 Survey #2 (NBU 921-25C1AS) MWD MWD MWD - Standard MWD - Standard

Survey			158a192.2684.279246	NAMES NAMES		\$11897 (DEPAYSA 5874) ##W		Augusta ar Willy and 1995 and 1995	n Sana arkony eganyerik
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
10.00	0.00	0.00	10.00	0.00	0.00	14,533,953.48	2,058,860.26	40.012084	-109.505636
165.00	0.08	262.14	165.00	-0.01	-0.11	14,533,953.46	2,058,860.15	40.012084	-109.505637
223.00	0.67	81.85	223.00	0.03	0.19	14,533,953.51	2,058,860.44	40.012084	-109.505636
311.00	2.37	78.64	310.96	0.46	2.48	14,533,953.98	2,058,862.73	40.012085	-109.505627
428.00	3.61	70.91	427.80	2.14	8.33	14,533,955.76	2,058,868.55	40.012090	-109.505607
518.00	4.50	74.95	517.58	3.98	14.42	14,533,957.71	2,058,874.61	40.012095	-109.505585
608.00	6.42	64.22	607.17	7.09	22.36	14,533,960.94	2,058,882.50	40.012104	-109.505556
698.00	7.59	64.32	696.49	11.85	32.25	14,533,965.87	2,058,892.30	40.012117	-109.505521
788.00	8.97	66.76	785.55	17.20	44.06	14,533,971.41	2,058,904.02	40.012131	-109.505479
878.00	10.75	66.42	874.22	23.32	58.20	14,533,977.78	2,058,918.05	40.012148	-109.505428
968.00	12.84	65.18	962.32	30.88	74.97	14,533,985.61	2,058,934.70	40.012169	-109.505369



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 921-25D PAD

Wellbore: Design:

NBU 921-25C1AS NBU 921-25C1AS

NBU 921-25C1AS

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 921-25C1AS

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

True

Minimum Curvature

edm5000p

Measured Depth		4	Vertical Depth	+N/-S		Map	Map		
(ft)	Inclination (°)	Azimutn (°)	(ft)	(ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
1,058.00	14.42	66.41	1,049.78	39.56	94.32	14,533,994.62	2,058,953.90	40.012193	-109.505300
1,148.00	16.09	65.80	1,136.60	49.16	115.96	14,534,004.58	2,058,975.38	40.012219	-109.505222
1,238.00	17.32	66.33	1,222.80	59.65	139.61	14,534,015.47	2,058,998,85	40.012248	-109.505138
1,328.00	18.03	67.47	1,308.56	70.37	164.74	14,534,026.60	2,059,023.80	40.012277	-109.505048
1,418.00	19.64	67.15	1,393.73	81.58	191.55	14,534,038.26	2,059,050.41	40.012308	-109.504952
1,508.00	20.64	66.67	1,478.23	93.73	220.05	14,534,050.89	2,059,078.71	40.012341	-109.504851
1,598.00	21.02	65.89	1,562.35	106.61	249.35	14,534,064.26	2,059,107.79	40.012377	-109.504746
1,688.00	21.59	65.12	1,646.20	120.17	279.11	14,534,078.31	2,059,137.31	40.012414	-109.504640
1,778.00	21.10	66.15	1,730.02	133.69	308.94	14,534,092.33	2,059,166.92	40.012451	-109.504533
1,868.00	21.06	66.08	1,814.00	146.79	338.54	14,534,105.93	2,059,196.29	40.012487	-109.504427
1,958.00		70.02	1,898.46	158.45	367.35	14,534,118.07	2,059,224.90	40.012519	-109.504325
2,048.00		70.76	1,983.16	168.66	396.02	14,534,128.76	2,059,253.39	40.012547	-109.504222
2,138.00		69.62	2,067.54	179.27	425.46	14,534,139.86	2,059,282.65	40.012576	-109.504117
2,228.00		67.98	2,151.99	190.52	454.48	14,534,151.59	2,059,311.48	40.012607	-109.504013
2,318.00		68.79	2,236.47	201.95	483.33	14,534,163.51	2,059,340.13	40.012639	-109.503910
2,408.00		68.61	2,320.81	213.35	512.58	14,534,175.40	2,059,369.19	40.012670	-109.503806
2,468.00		67.47	2,377.11	221.11	531.83	14,534,183.48	2,059,388.31	40.012691	-109.503737
2,523.00		66.43	2,428.83	228.43	549.04	14,534,191.09	2,059,405.39	40.012711	-109.503676
2,534.00		66.95	2,439.18	229.91	552.48	14,534,192.63	2,059,408.80	40.012715	-109.503664
2,625.00		67.73	2,524.61	241.98	581.39	14,534,205.18	2,059,437.50	40.012748	-109.503560
2,715.00		66.02	2,609.44	253.78	609.04	14,534,217.44	2,059,464.96	40.012781	-109.503462
2,806.00		70.50	2,695.89	264.33	635.40	14,534,228.43	2,059,491.14	40.012810	-109.503367
2,897.00		73.75	2,782.61	272.79	661.66	14,534,237.33	2,059,517.25	40.012833	-109.503274
2,987.00		71.62	2,868.31	280.97	687.89	14,534,245.95	2,059,543.34	40.012856	-109.503180
3,078.00		69.12	2,955.11	290.14	713.62	14,534,255.55	2,059,568.91	40.012881	-109.503088
3,169.00		64.62	3,042.37	300.25	737.39	14,534,266.05	2,059,592.51	40.012908	-109.503003
3,259.00		58.99	3,128.75	312.21	759.62	14,534,278.38	2,059,614.54	40.012941	-109.502924
3,350.00		58.25	3,215.29	326.86	783.62	14,534,293.43	2,059,638.29	40.012982	-109.502838
3,441.00		57.24	3,301.09	343.05	809.27	14,534,310.05	2,059,663.66	40.013026	-109.502747
3,531.00		57.24	3,385.87	359.38	834.65	14,534,326.81	2,059,688.76	40.013071	-109.502656
3,622.00		57.99	3,471.96	375.18	859.55	14,534,343.02	2,059,713.40	40.013114	-109.502567
3,713.00		60.50	3,558.00	390.31	885.02	14,534,358.58	2,059,738.61	40.013156	-109.502476
3,803.00		64.87	3,642.47	404.53	912.62	14,534,373.26	2,059,765.96	40.013195	-109.502378
3,894.00		61.12	3,727.75	418.94	940.92	14,534,388.14	2,059,794.02	40.013234	-109.502277
3,985.00		63.12	3,813.17	433.60	968.64	14,534,403.27	2,059,821.49	40.013275	-109.502178
4,075.00		63.00	3,897.47	447.88	996.74	14,534,418.02	2,059,849.35	40.013314	-109.502077
4,166.00		62.12	3,983.08	462.08	1,024.11	14,534,432.67	2,059,876.48	40.013353	-109.501980
4,257.00		62.37	4,069.81	474.92	1,048.49	14,534,445.91	2,059,900.64	40.013388	-109.501892
4,347.00		64.75	4,155.96	486.49	1,071.81	14,534,457.88	2,059,923.75	40.013420	-109.501809
4,438.00 4,529.00		67.50	4,242.75	497.56	1,096.83	14,534,469.36	2,059,948.58	40.013450	-109.501720
4,619.00		65.62 66.12	4,329.40 4,415.25	508.61	1,122.32	14,534,480.84	2,059,973.89	40.013481	-109.501629
4,710.00		68.31	,	519.66 530.94	1,146.98	14,534,492.30	2,059,998.36	40.013511	-109.501541
			4,501.41 4,586.53		1,173.95	14,534,504.03	2,060,025.13	40.013542	-109.501444
4,801.00 4,891.00		71.50 71.00	4,670.62	541.98 552.28	1,204.17 1,234.55	14,534,515.58	2,060,055.17	40.013572	-109.501337
4,982.00		70.75	4,756.43	562.20	1,263.16	14,534,526.39	2,060,085.37	40.013600	-109.501228
5,073.00		69.37	4,730.43	502.20 571.91	1,289.90	14,534,536.79 14,534,546.94	2,060,113.81	40.013628	-109.501126
5,163.00		73.50	4,928.34	580.87	1,209.90	14,534,556.35	2,060,140.39	40.013654	-109.501030
5,254.00		73.33	5,014.58	589.16	1,344.45	14,534,565.11	2,060,166.94 2,060,194.63	40.013679	-109.500935
5,345.00		71.00	5,101.13	597.74	1,371.20	14,534,574.13	2,060,194.03	40.013702	-109.500836
5,435.00		67.75	5,101.13	606.68	1,395.04	14,534,583.47	2,060,244.92	40.013725	-109.500740
5,526.00		70.87	5,275.39	614.98	1,416.91	14,534,592.14	2,060,244.92	40.013750 40.013773	-109.500655 -109.500577
5,617.00		72.37	5,363.86	621.71	1,437.11	14,534,599.20	2,060,286.74	40.013773	
5,708.00		69.25	5,452.87	627.88	1,454.99	14,534,695.67	2,060,304.51	40.013791	-109.500505 -109.500441
5,798.00		64.50	5,541.46	634.06	1,469.59	14,534,612.10	2,060,304.51	40.013825	-109.500441
5,100.00	0.00	31.00	5,571.70	557.00	1,100.00	. 7,007,012.10	2,000,010.01	+0.010020	-103.000009



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 921-25D PAD

Wellbore:

NBU 921-25C1AS

Design:

NBU 921-25C1AS NBU 921-25C1AS Local Co-ordinate Reference:

Well NBU 921-25C1AS

TVD Reference:

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

MD Reference: North Reference:

True

Survey Calculation Method:

Minimum Curvature

Database:

edm5000p

Measured			Vertical			Мар	Мар		
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
5,889.00	7.06	71.87	5,631.52	639.00	1,481.60	14,534,617.24	2,060,330.93	40.013838	-109.500346
5,979.00	5.06	73.62	5,721.01	641.84	1,490.67	14,534,620.23	2,060,339.95	40.013846	-109.500314
6,070.00	2.94	79.12	5,811.79	643.41	1,496.81	14,534,621.90	2,060,346.07	40.013851	-109.500292
6,161.00	2.81	80.12	5,902.67	644.23	1,501.30	14,534,622.80	2,060,350.54	40.013853	-109.500276
6,251.00	1.75	110.25	5,992.60	644.14	1,504.76	14,534,622.76	2,060,354.00	40.013853	-109.500263
6,342.00	1.81	112.62	6,083.56	643.10	1,507.39	14,534,621.77	2,060,356.65	40.013850	-109.500254
6,432.00	1.69	119.62	6,173.52	641.90	1,509.86	14,534,620.61	2,060,359.14	40.013846	-109.500245
6,523.00	1.63	129.00	6,264.48	640.42	1,512.03	14,534,619.17	2,060,361.33	40.013842	-109.500237
6,613.00	1.56	142.25	6,354.44	638.65	1,513.77	14,534,617.43	2,060,363.11	40.013838	-109.500231
6,704.00	1.63	150.62	6,445.41	636.54	1,515.17	14,534,615.34	2,060,364.54	40.013832	-109.500226
6,795.00	1.81	154.37	6,536.37	634.12	1,516.42	14,534,612.94	2,060,365.83	40.013825	-109.500222
6,886.00	1.81	156.62	6,627.32	631.50	1,517.62	14,534,610.35	2,060,367.07	40.013818	-109.500217
6,976.00	1.88	163.50	6,717.28	628.78	1,518.60	14,534,607.64	2,060,368.10	40.013810	-109.500214
7,067.00	1.94	166.87	6,808.23	625.85	1,519.37	14,534,604.73	2,060,368.92	40.013802	-109.500211
7,158.00	1.49	235.37	6,899.19	623.68	1,518.75	14,534,602.54	2,060,368.33	40.013796	-109.500213
7,248.00	1.38	224.00	6,989.16	622.23	1,517.03	14,534,601.07	2,060,366.64	40.013792	-109.500219
7,339.00	1.56	208.87	7,080.13	620.36	1,515.68	14,534,599.17	2,060,365.31	40.013787	-109.500224
7,430.00	1.44	202.00	7,171.10	618.22	1,514.65	14,534,597.01	2,060,364.32	40.013781	-109.500228
7,520.00	0.50	246.25	7,261.09	617.01	1,513.87	14,534,595.79	2,060,363.56	40.013778	-109.500231
7,611.00	1.56	341.00	7,352.08	618.02	1,513.10	14,534,596.79	2,060,362.78	40.013781	-109.500233
7,702.00	1.00	334.00	7,443.06	619.91	1,512.35	14,534,598.66	2,060,362.00	40.013786	-109.500236
7,792.00	0.75	316.75	7,533.05	621.04	1,511.60	14,534,599.79	2,060,361.23	40.013789	-109.500239
7,883.00	0.94	329.00	7,624.04	622.11	1,510.81	14,534,600.85	2,060,360.42	40.013792	-109.500242
7,973.00	2.19	343.75	7,714.00	624.40	1,509.95	14,534,603.11	2,060,359.52	40.013798	-109.500245
8,064.00	1.75	342.75	7,804.95	627.39	1,509.05	14,534,606.10	2,060,358.57	40.013807	-109.500248
8,155.00		318.62	7,895.92	629.32	1,508.11	14,534,608.00	2,060,357.60	40.013812	-109.500251
8,245.00		298.00	7,985.91	630.30	1,506.86	14,534,608.96	2,060,356.33	40.013815	-109.500256
8,339.00		284.00	8,079.89	630.87	1,505.44	14,534,609.51	2,060,354.91	40.013816	-109.500261
8,429.00		271.50	8,169.89	631.03	1,504.24	14,534,609.66	2,060,353.70	40.013817	-109.500265
8,520.00		262.00	8,260.88	630.97	1,503.10	14,534,609.58	2,060,352.56	40.013816	-109.500269
8,611.00		197.37	8,351.87	630.52	1,502.44	14,534,609.11	2,060,351.91	40.013815	-109.500272
8,701.00		204.25	8,441.87	629.74	1,502.14	14,534,608.33	2,060,351.62	40.013813	-109.500273
8,792.00		215.87	8,532.87	628.98	1,501.70	14,534,607.56	2,060,351.19	40.013811	-109.500274
8,883.00		140.25	8,623.86	627.85	1,502.07	14,534,606.44	2,060,351.59	40.013808	-109.500273
8,973.00		147.63	8,713.83	626.02	1,503.38	14,534,604.62	2,060,352.93	40.013803	-109.500268
9,064.00		124.87	8,804.79	624.10	1,505.26	14,534,602.74	2,060,354.83	40.013798	-109.500261
9,155.00		101.50	8,895.75	623.00	1,507.80	14,534,601.69	2,060,357.39	40.013795	-109.500252
9,245.00		103.75	8,985.70	622.37	1,510.62	14,534,601.10	2,060,360.23	40.013793	-109.500242
9,336.00		104.50	9,076.64	621.58	1,513.76	14,534,600.36	2,060,363.38	40.013791	-109.500231
9,427.00		121.37	9,167.58	620.28	1,516.84	14,534,599.11	2,060,366.48	40.013787	-109.500220
9,517.00		141.25	9,257.52	618.06	1,519.34	14,534,596.94	2,060,369.02	40.013781	-109.500211
9,608.00		144.75	9,348.45	615.25	1,521.46	14,534,594.16	2,060,371.19	40.013773	-109.500204
9,699.00		143.37	9,439.39	612.52	1,523.44	14,534,591.46	2,060,373.21	40.013766	-109.500197
9,789.00		157.37	9,529.33	609.81	1,524.98	14,534,588.78	2,060,374.80	40.013758	-109.500191
9,880.00		152.37	9,620.28	607.02	1,526.28	14,534,586.01	2,060,376.15	40.013751	-109.500186
9,970.00		152.22	9,710.23	604.33	1,527.69	14,534,583.35	2,060,377.60	40.013743	-109.500181
	vd survey	455 4 :		202 ==	4 ====:				
10,020.00	2.04	152.14	9,760.20	602.78	1,528.51	14,534,581.81	2,060,378.44	40.013739	-109.500178



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH_NBU 921-25D PAD

Well: Wellbore: Design:

NBU 921-25C1AS

NBU 921-25C1AS NBU 921-25C1AS Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 921-25C1AS

14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146) 14' RKB + 4941' GL @ 4955.00ft (ENSIGN 146)

True

Minimum Curvature

edm5000p

Design Annotations

	10,020.00	9,760.20	602.78	1,528.51	projection
	9,970.00	9,710.23	604.33	1,527.69	last mwd survey
,	 (a) Property of the Control of the Con	ertical Depth +N (ft) (f		es E/-W (ft)	Comment

Checked By:	_ Approved By:	Date: